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COMMITTEE HEARING

BEFORE THE

ENERGY RESOURCES CONSERVATION AND DEVELOPMENT

COMMISSION OF THE STATE OF CALIFORNIA

In the matter of, )
) Docket No. 16-EBP-01
)
2016 Existing Buildings Energy )
Efficiency Action Plan

STAFF WORKSHOP ON THE

DRAFT 2016 EXISTING BUILDINGS ENERGY

EFFICIENCY ACTION PLAN UPDATE

CALIFORNIA ENERGY COMMISSION

FIRST FLOOR, ART ROSENFELD HEARING ROOM

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

MONDAY, OCTOBER 17, 2016

9:30 A.M.

Reported By:
Kent Odell
APPEARANCES

Commissioners
Andrew McAllister

CEC Staff Present
Martha Brook, Existing Buildings Unit
Abhilasha Wadhwa
Eric Jensen, Existing Buildings Unit
Laith Yunis, Data Lead, Existing Buildings Unit
Daniel Johnson, Existing Buildings Unit

Public Present
Bob Raymer, CBIA, CBPA, CALBO Energy Committee
Jeli Gavric, California Association of Realtors
George Nesbitt, HERS Rater
Barbara Hernesman, Synergy Nexgen, Co-Chair, Western HVAC Performance Alliance
Laura Ettenson, NRDC
Jim Caldwell, Professor, California Community College System
Derek Okada, Senior Manager, Policy & Planning, Southern California Edison
Randy Young, Representing Sheet Metal Workers
Bernie Kotlier, California Labor Management Committee
Eddie Moreno, Sierra Club California
Dion Abril, Joint Committee on Energy and Environmental Policy
Public Present (Cont.)

Ross Nakasone, Bluegreen Alliance for a Coalition of Labor and Environmental Groups

Steve Thomas, Director of Training, Stationary Engineers, Local 39.

Charles Kormani, Executive Director, Efficiency First California

Lynne Harris Hicks

Matt Golden
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MR. JENSEN: Let’s go ahead. So, welcome, everyone, good morning. This is the Action Plan Update Workshop, so, hopefully, that’s what you’re here for.

I’m going to -- we’re going to have a variety of presenters today. I’m going to take us through the administrative stuff, regarding the workshop. I’ll hand it off to Martha. I’ll come back, after Martha, and then some other folks will take over.

So, first of all, housekeeping items. Emergency exits, you can exit the room either how you came in, there’s another door in that back corner, there. Either one will get you to the same place.

You can exit through the door, through which you came in, or through the emergency exit. Don’t use the emergency exit, unless it’s an emergency.

Restrooms, right out -- right out in that same general area, right out there. Snack bar, head either up the stairs, or up the elevator, and that’s where the snack bar is. There’s an open seating area, go through the doors there to get to the snack bar.

When it comes time for comments, first we’ll take comments in the room. Second, we’ll do people who are on WebEx. And last, we’ll unmute the phones, and
people who are on phones can speak up. I cannot stress enough, how important it is, if you don’t have anything to say, please keep your phone muted. We will unmute the phone lines, but if you don’t have anything to say, keep it muted on your end so we don’t hear whatever might be going on in the background, there.

WebEx, so, the secondary group of folks are those on WebEx. If you’re on WebEx, and you want to make a comment, please raise your hand so we know to call on you.

Here’s the agenda. First, will come -- Martha will give us the Action Plan Overview and Policy Updates. We’ve got -- we’ll present each of the five goals, separately. After each of the goals, we’ll have a public comment period just for that one goal.

This is not the -- we’ve fiddled, continued fiddling with the agenda, after publishing it. But the general idea is we’ll have Goal 5, comments for Goal 5, and then we’ll have a general comment period, where people can comment on anything that was presented today, if they want to.

We’re hoping to get through all of this before, and not have to take a lunch break. So, if you’ve got something to say, please weigh the importance of what you have to say against, you know, finishing this before
lunch. So, keep that in mind.

(Laughter)

MR. JENSEN: All right. Comment deadline is 5:00 p.m., on Tuesday, November 1st. The Docket Number is 16-EBP-01. We will explain, at the end, how to do that. But that’s your comment deadline.

And I think this is where I hand this over to Martha.

MS. BROOK: Good morning. That was Eric Jensen, just for your information. And my name’s Martha Brook. And we are both part of the Existing Buildings Unit, in the Energy Efficiency Division.

I’m not going to start, quite yet, because Commissioner McAllister’s expected to arrive soon, and we want to give him the chance of welcoming you, personally. And also, having an opening message, if he wants.

(Off-record comment)

MS. BROOK: Yeah, I guess I could, but most of my jokes are inappropriate. So, probably not going to go there.

(Laughter)

MS. BROOK: So, I am not going to just BS. I’m going to just be quiet and hope --

UNIDENTIFIED SPEAKER: Why don’t we introduce
ourselves?

MS. BROOK: Yeah, that’s good. Why don’t you do that, either up there -- so, the team will introduce themselves while we wait for Commissioner McAllister.

MR. YUNIS: Hi, my name is Laith Yunis, with the Existing Buildings Unit. I’ll be going over the data goal, Goal 2. My main focus here is the Data Lead, within the Existing Buildings Unit. I’ve been working a lot with Eric Jensen, on the AB 802 Regulation development, and the infrastructure. We’ve been doing a lot of calls with the utilities to discuss how to proceed with AB 802.

MS. BROOK: All right, we’ll do the rest of the introductions later. But I did want to make one more announcement, as McAllister’s getting seated. So, we have -- we have a water issue in the building, where all the drinking fountains have been shut off.

And so, Daniel, who just left, is going to bring down a packet of bottled water, and they’ll be outside, somewhere, where you can grab them, if you’re thirsty.

All right. So, we’ve done the housekeeping items, Commissioner McAllister. And if you would like to welcome the group and introduce the day, then that’s up to you.

COMMISSIONER MCALLISTER: Absolutely. Well,
thank you, very much. Sorry I’m running a little bit late. I’m glad you went ahead and got started with the housekeeping and the introductions.

So, my name’s Andrew McAllister. I’m the Commissioner that oversees energy efficiency. And, Assembly Bill 758 has been sort of, I guess, probably, the top priority, really, if we have to think about all the things that we’re doing in the Efficiency Division, and in general, you know, efficiency policy.

You know, including Title 24 Building Efficiency Standards, and Title 20 Appliance Efficiency Standards, in addition to those two, sort of major bread and butter things, AB 758 has really been one of our driving enterprises in the Division, over the last few years. Really, since I sat down with the Commission.

And, in part, it’s because I think we all see that there’s really no path, that we can discern, that gets us where we need to go, overall, with our energy and carbon goals, that doesn’t go straight through the existing building stock. So, we have to figure out ways to affect the various building sectors in our built environment.

They’re very diverse, you know, from the smallest, multi-family residential apartment, with a renter in it, you know, all the way up to the largest
commercial building, and government buildings across the State.

So, there’s lots of variability, so it means lots of strategies that, together, need to add up to a value proposition that can take place in every existing building.

So, I think staff hears this from me all the time, and I think we all really agree on this point, that we have to engage the marketplace, and the building owners, and the residents across the State. Because they’re the ones that have to choose to do projects. You know, this is not something that is -- at least, in most cases, this is not something that lends itself to sort of, you know, mandates.

If we do -- and we will go there, if we have to, eventually, when we see, really -- we have enough information to understand what the rock solid value propositions are that everybody ought to just be doing. Right?

But for the most part, and certainly for the near term, we’ve got to help the marketplace define value in a building, and offer the product that the building owner and the resident wants, at a reasonable price, that has the full range of benefits to motivate that decision.
So, many of the strategies in the Action Plan sort of back that up, try to bolster that approach. You know, data, leadership at the government level, up and down the State, helping the workforce sort of move to the future challenge. Offering financing, other sort of market gap-filling endeavors, you know, assistance that really helps us go down this path.

You know, and there’s plenty of private capital, on the sidelines, that’s looking for a great investment. And we just need to help the capital find the projects, find good projects.

So, in general, that’s kind of the philosophy, I think, that we’ve taken here. And, you know, if you read the Action Plan, there are literally dozens of very substantive strategies that, together, make it up. And that’s because there’s no silver bullet. You know, we’re sort of taking the silver buckshot approach. There’s lots of -- there are lots of good ideas. There are lots of initiatives that can help, but no one is sufficient to really get it done.

So, really, it’s understand the marketplace, which we’re focused on here. Trying to get better information about it, so that we can consciously and intentionally do policy that targets the right opportunities, and helps the projects happen in the
right way.

So, I’m extremely excited about what the future holds for 758, and its subsequent adoption in law, really, beyond 758, originally, in SB 350, as a doubling of energy efficiency. So, that evolution, I think, is very intentional in the policy community, and the Legislature and the Governor know that we’re headed in this direction, and very much support it.

So, we’ve got a lot of heavy lifting ahead of us. We’ve done a lot, already, and we’ve got, I think, a pretty clear path forward.

And I really want to take the time to have the conversations that we need to, to get the right stakeholders involved. I really appreciate all of you, in the room, for coming. Anybody who’s on the phone, on the web, as well. It’s really critical to have knowledgeable and passionate people involved in this that really have -- you know, that are thinking long term for what’s best for California, and putting in their perspectives.

And I think things are really moving forward in a productive way. We’re working a lot with our sister agency, the CPUC, and other agencies involved to, I think -- I think form, really, a team mentality that’s helping each of these strategies move forward.
So, Eric, and Abhi, and Martha, and all the staff that’s involved on this, on this project, this sort of enterprise around AB 758, we’re all very passionate about it. And I’m very thankful for that and I feel really fortunate to be here, pushing this very, very necessary discussion in California.

And my door is open, for those of you who have views that need to be -- that you want to be considered. I try to keep my door open, as much as possible. I know staff does, as well. So, please, don’t be shy. It’s not just about the workshop. It’s about the ongoing conversation.

So, looking forward to a great day, today, and back to Martha. Thank you, very much, for coming, everyone.

MS. BROOK: Thank you, Commissioner.

Okay, so despite what Eric said about us wanting to get done before lunch, we really are here to hear your comments, and to have your contributions heard, and that’s from all of you who came, and traveled here today, but also for those of you on the phone. We’ll be here as long as we need to be here to get your comments.

And I would say that we know that we didn’t capture everything that’s happened in the last year, which is basically what we tried to do in the update is
to, basically, what’s different and new since we
published the plan last year. But it’s only been a
year. So, it really, I think, is a true update. We’re
not -- we don’t have anything structurally, phenomenally
different, than a year ago.

But if you know, you personally, in your
organization, or you know of work that’s really
innovative, and you think has the ability to scale, and
is paradigm-shifting, and it’s not in this plan update,
please let us know, because we would really like to hear
about it.

Okay, so, as Andrew mentioned, the Action Plan
was a requirement in Assembly Bill 758, Skinner, 2009.
And it calls for a statewide, comprehensive program to
achieve greater energy efficiency in existing buildings.

So, it’s not an Energy Commission thing. It’s a
statewide thing. And as you can see, in the leadership
we’ve identified in the strategies, in the plan,
multiple organizations across the State are really
providing the leadership to accomplish the strategies in
the plan.

So, the plan, itself, as Andrew mentioned, is a
roadmap to activate market forces and to transform the
existing building stock into high-performing, energy-
efficient buildings.
What has changed? So, one of the things that was changed is policy. We have two or three large policy updates that happened in the State, over the last year, and we’ve tried to -- tried to summarize that policy in the update, and to explicitly, you know, document how we’re going to implement those strategy directions.

One of the things that was required in 350, was that we did this plan update, in the timeframe that we’re completing it in. And so, we’re definitely going to be checking that box. Because the intent is that this update gets adopted by the full Commission before January 2017.

But this plan is, we think, an addendum, or an update. It does not replace the entire 2015 plan. And I think you can tell, from the plan document, if you’ve had a chance to look at it, that it is an update and it’s not a replacement to the comprehensive plan that we published last year.

So, SB 350 does a number of things. One of which is that it requires, by January 2017 --
explain, briefly, how the document that we’ve posted relates to the full plan.

MS. BROOK: Okay.

COMMISSIONER MCALLISTER: Maybe you sort of did that already but --

MS. BROOK: No, I don’t think I did.

COMMISSIONER MCALLISTER: But kind of, sort of how people can use the document. You know, because we try to be parsimonious about what’s actually in that document, so the places where kind of we really feel like people need to look, to get a view of what the changes are. Right?

MS. BROOK: Yeah.

COMMISSIONER MCALLISTER: So, it’s not a reproduction of the whole Action Plan. Right?

MS. BROOK: So, thank you, Commissioner. So, the plan document, it basically points back to the plan for all of the policy background. Basically, the history of energy efficiency in California. That’s in the original plan. It’s not replicated here.

So, it goes really straight into a policy update. And then, it attempts to update and refresh the set of strategies that are in Chapter 3 of the original plan.

But the text, itself, in the update, is all new.
So, it’s not underlined in strikeout, over the original plan. It’s new text that really provides an update of where we are, in meeting our strategy objectives, that were outlined last year.

It does include the original strategy tables, for a reference. So, then, you can understand where we’ve modified strategies.

And most importantly, probably most of the updates are in the timeline. Where we were overly-ambitious in setting target dates last year, we’ve tried to chew those up a bit, about what we expect to happen with our fresh, 2016 eyes.

And I think that’s about it. Yeah.

Okay, so in the policy update section, we include an introduction to SB 350, which is, you know, shorthand for doubling energy efficiency, in California. So, SB 350 assigns the Energy Commission, working with the Public Utility Commission, and other stakeholders, the direction to establish energy savings targets that will achieve a cumulative doubling of energy efficiency savings by 2030.

SB 350 does additional things. Like, it requires the Energy Commission to study the barriers to -- of energy efficiency in the low-income and disadvantaged community sectors, in California. And
we’re separately publishing a report to meet that section of SB 350.

SB 350, also, along with AB 802, gives the Energy Commission reinforced authority to complete the data collection regulations that will allow us to actually track policy, energy efficiency policy achievements over in our long-term demand forecast paradigm.

And this is critical for us being able to implement both 350, and AB 802, in terms of really understanding where energy efficiency savings are incremental, or have already been assumed to happen in our demand forecast.

AB 802 has two separate and distinct mandates. One is that it establishes a new building energy use benchmarking and public disclosure program, which the Energy Commission is in the process of implementing. And if you’re involved in our Benchmarking Disclosure Program, then you’re well aware that we’re wrapping up our pre-rulemaking activity, and getting ready to open our formal rulemaking activity in that area.

AB 802 also establishes existing conditions baselines, as an opportunity for ratepayer programs to think and deploy efficiency programs differently in the State. So, in the past, by and large, the predominant
baseline in ratepayer-funded programs was a code baseline. Which meant that you only got a ratepayer boost, in terms of an incentive or a rebate, if you installed a piece of equipment, or a service that went beyond what’s in our Title 20 or Title 24 standards.

And existing conditions baseline allows program administrators and program implementers to help consumers get to code, as well as go beyond code. And there are very -- several exceptions to existing conditions baseline, which the Public Utility Commission is determining, now, through a set of workshops and proceedings. So, not every efficiency activity will have an existing conditions baseline, but many will.

And, AB 802 also supports the concept of normalized meter-based energy savings. And this is, basically, the opportunity to take advantage of our AMI infrastructure in the State, to calculate energy savings based on metered consumption. And we’ll be talking more about that, later today, in our industry section.

COMMISSIONER MCALLISTER: I want to also bring up a point, Martha, if I can. Just, you know, so that discussion about sort of the, you know, baseline and what’s happening at the PUC is sort of to refresh the approach that the utility-funded ratepayer -- or, the ratepayer-funded, you know, programs, the portfolio,
refresh the portfolio, itself. So, the activities that are funded by the ratepayer dollars at the PUC, or at the individual IOUs.

So, I want to make sure, though, that we keep in perspective that we do, sort of most broadly, some of the -- you know, there’s some really interesting ideas floating around about how to just get the existing buildings, themselves, up to code, whether or not they participate in ratepayer-funded programs, in the portfolio.

MS. BROOK: Uh-hum.

COMMISSIONER McALLISTER: And so that’s -- again, I think we were -- it’s helpful to think about the marketplace broadly, and sort of its transformation. And then, clearly, how any funds, including the biggest pot out there, which is the ratepayer-funded utility portfolio programs, can sort of help that larger endeavor.

So, you know, it’s very valuable, for a project to take place, to get an old building, that’s got really bad performance, up to code or even beyond code. And that is true, independent of what programs it participates in.

And so, I think we want to help sort of cultivate this, I think, flexible understanding of how
we can help the marketplace. And so, you know, we
definitely want to make sure that the programs do all
you can do. But we also, sort of, don’t want to focus,
exclusively, on that issue because I think there’s a
broad marketplace that many of which -- you know, many
projects within which never touch any program, you know.

So, I think there’s -- let’s just try to keep
that broad perspective, I guess is what I’m saying.

MS. BROOK: Uh-hum.

COMMISSIONER MCALLISTER: That’s what we’ve
tried to do in the Action Plan.

MS. BROOK: That’s a very good point. And one
of the things that the Energy Commission, and the Public
Utility Commission, will be doing over the next year is
to set these SB 350 savings targets.

And what Andrew mentioned is definitely
something that we’re going to be considering, when we
establish new wedges of energy savings, is what’s not
already counted, and thought about in the classical
ratepayer program domain. And where can we achieve
additional incremental savings. And looking outside of
ratepayer-funded programs is an obvious place that we’ll
be focusing.

COMMISSIONER MCALLISTER: And there’s a flip
side of that, too, because, you know, the ratepayer-
funded programs can be extremely, they are extremely --
you know, they have a history of being extremely helpful
for the market transformation endeavor, generally.
Right?

And so, you know, where we sort of, I think,
need to, you know, help -- you need to help everyone
think about this. All the stakeholders kind of need to
help in our community here, think about this, is when do
we -- how can we appreciate the impact of ratepayer-
funded programs, or any other programs, in the market
transformation kind of perspective. You know, and not
trip over some of the direct attribution questions, and
really sort of think of this that we’re funding
something that’s more long term, that’s more, you know,
getting the marketplace to sort of shift, broadly, in
ways -- in ways that we can measure the impact of
broadly, but maybe can’t trace back to individual
initiatives.

So, I’m already kind of going wonky here, on the
kind of the attribution question. But I think it’s
really important to find the balance of being
accountable for the use of program funds, but not to the
sort of extreme of losing sight of, you know, the
forest. Right? And focusing too much on the trees.

So, I think there’s a balance there. And,
MS. BROOK: Okay, two more policy updates. One is AB 793, which directs the Public Utility Commission to require that the Investor Owned Utilities provide incentives to residential, and small and medium business, for energy management technologies.

So, the Investor Owned Utilities have done the work they needed to do, to develop these plans, and they’re getting reviewed, and discussed, now.

And this supports several strategies in both our Data Section, and our Consumer Value Section of our plan. So, we wanted to make sure that we highlighted it here.

And then, the Public Utility Commission is in the process of the rolling portfolio proceeding. And in August, they published, or adopted a final decision that gave direction on high opportunity programs, and projects, which is part of AB 802. This is the Meter Based Savings Pilots that will be launching in 2017.

And several decisions in that August decision, in terms of statewide programs, and streamlining statewide programs to bring down administrative costs,
and a real push to get the industry to innovate, and a push towards third party program implementer strategies, included in the rolling portfolio. And lots of really strong and, hopefully, effective, policy in that August decision, by the Public Utility Commission.

Okay. So, we’re not -- I don’t expect you to actually read this slide. This is sort of our -- kind of our framework for the day. What we were thinking that we would do is break down each of these timeline graphics by goal.

So, we’ll be spending the rest of the day taking these goal-by-goal, with the intent of hearing from you about what’s potentially critically missing in this long-term view, of our implementation strategies, to actually achieve a doubling of energy efficiency by 2030?

My personal opinion is that we don’t really have enough strategies in the 2019 to 2025 period to accomplish or to say that we have a robust 10-year roadmap. And I think that’s mostly because, at least from -- maybe it’s a human thing. Maybe it’s just a nerdo engineering thing. I don’t know what it is. But it’s really hard to look -- I mean, everything that you want to do is in the next three years, and so it’s hard to look further out, and to figure out what’s strategic,
that has to get accomplished in the five/seven year
timeframe. I think that’s really where most of our gaps
are, if I was going to be completely honest.

So, help us out. What are we missing that,
really, is going to help us accomplish the 10-year
timeframe?

So, and the other thing, to be honest with you,
some of the reason this looks maybe skewed towards Goal
1, is that it’s like graphic real estate. Like, it’s
really hard to get it all on a one-page, or a two-page,
document. So, anything that you can do to suggest where
we’re really, obviously, just not being comprehensive,
in terms of the goal strategies, we’ll definitely
appreciate that.

All right. Eric, I think you’re up.

MR. JENSEN: Thanks, Martha.

So, some of these -- so, I’m going to be doing
Strategies 1.1 through 1.3. 1.1 is State and school
buildings, and 1.2 is benchmarking and public
disclosure. 1.3 is minimum standards and best practices
for building performance assessment tools.

Some of these things will be changes in
direction or changes in policy. Some of them are just
updates on things we already presented in the original
Action Plan.
So, let’s see, here. So, Executive Order B-1812 is a requirement for State buildings to improve their energy use and water use. And, specifically, it called for a 20 percent reduction in grid-based energy, by 2018, using a 2003 baseline, and a 20 percent reduction in water, by 2020, using a 2010 baseline. So, different baselines and different goal years for both of those. The main point was a 20 percent reduction in both.

To date, agencies have reduced energy use by 17 percent and water use by 40 percent. So, we’re doing pretty well there.

State agencies are also required to benchmark energy and water use, and report it to the Department of General Services. So far, they’ve done so for over 1,500 State buildings. And, currently, the State’s Energy and Sustainability Program has 90 State building retrofit projects in progress.

Let’s see, here. Okay, clean energy -- don’t worry too much about the list here. I’m just sort of hitting some of the high points from the plan update, and so I won’t be -- won’t be working directly off of this slide, here.

The Clean Energy Jobs Act, commonly known as Prop. 39, provides funding to improve the energy performance of school buildings and campuses.
Energy Commission is administering the program for kindergarten through 12th grade. To date, they’ve approved more than 1,000 applications for projects, totaling over $700 million. The estimated savings, so far, are 275 million kilowatt hours of electricity, annually, and over 1.7 million therms of natural gas, annually.

There are two new databases for seeing some of the outcomes from this program. One is the Prop. 39, publicly searchable database, which has some high level and general data about the program. The other is the K through 12 Program Research Database. The URLs for both of those are in the Action Plan update.

The Department of State Architects completed, or is working on a project to improve, to get schools -- or, to examine the feasibility of getting schools to zero net energy. And they completed an assessment, or they financed some architectural firms, completing assessments, to do so. Seven firms, in seven different -- seven school campuses, in a variety of climate zones, called the 7-by-7-by-7 program. And those findings are on the website. It’s 7-by-7-by-7 Design Energy Water. The link to that is also in the plan update.

Next, we get to benchmarking. So, when we released the plan, the original plan, in September 2015,
the program in effect for benchmarking was AB 1103, which required building owners to disclose building energy usage to a very limited group of folks, only at time of transaction.

Since then, AB 802 passed, just one month -- in October 2015. That repealed AB 1103, and put in place a new program, which will provide energy use data to building owners, certain building owners, and requires the Energy Commission to create a program for benchmarking, publicly disclosing energy use information for a subset of those buildings.

So, some important distinctions between the previous program and the new program. The new program includes multi-family buildings. It establishes an explicit customer information threshold. So, we don’t need to go into the particulars, but there was ambiguity, in the previous program, about in what cases utilities needed to provide data to building owners.

And now, it’s much clearer.

And, as I mentioned, there’s no longer a specific time of transaction disclosure requirement. It will be a time certain requirement.

However, any time someone is interested in purchasing a building, or renting space in a building, they’ll be able to go on our State website and see what
the energy performance is of that building.

Recently, the U.S. Department of Energy, and Costar Realty Group, which is a real estate information service, executed a memorandum of understanding. And Costar will be including -- so, let me back up. So, U.S. Department of Energy will pull the outputs from benchmarking programs around the country, clean it up, send it to Costar. And Costar will include that information in listings for buildings.

So, even though there’s no specific time of transaction disclosure requirement, now, anyone who’s interested in looking at a building can just go to either our State website, or the Costar page for that building, and see the performance, energy performance information. So, that’s -- so, there’s no -- nothing is being lost regarding time of transaction.

COMMISSIONER MCALLISTER: Let me just chime in there, too. So, I want to just highlight this and note that, as Martha said, we’re still developing those regs and sort of working through proposed reg language for the AB 802 program. And, you know, how best to get -- so, there will be time-certain benchmarking.

You know, fundamentally, benchmarking is good for the building owner because the building owner understands the building, and can make investments in
the building. Right? So, and help the tenants, and
that sort of helps facilitate the marketplace,
generally.

But I’d like anybody’s -- you know, anybody’s
sort of ideas about how to get the right information,
into the right person’s hands at any moment that it
might be helpful, including a transaction.

And so, I think that we’ve been working with
Department of Energy to kind of push, help that option
happen, so that Costar, as the sort of MLS equivalent of
the commercial sector, can automate a lot of this. And
just make it happen as part of all transactions.

So, I think there’s a lot of potential power in
that. But suggestions that folks have, about other ways
that the benchmarking data might facilitate decision
making, would be very helpful, as well.

So, that’s, you know, a different proceeding
but, also, very complementary to this one.

MR. JENSEN: Great. Thank you.

So, we conducted a workshop late in 2015, right
after the bill passed to -- that was a scoping workshop
to get initial input into the program design. This
year, we’ve conducted two workshops to share draft
regulatory language. And, shortly, we’ll be submitting
our regulatory language to the Office of Administrative
Law, for their consideration.

And we’re looking at the second half of 2017 for the regs to go into effect.

Even though the regs aren’t going into effect until later next year, the statute gives building owners access to whole building data January 1, 2017. So, while the regs do provide some clarity on exactly how the building owners can make their requests, and what the utilities need to provide, they’ll be able to do so right at the beginning of 2017.

And then, the tentative schedule, we’re proposing in the regulations, is for building owners to start reporting energy use data, for commercial buildings, to the Energy Commission in April 2018. And owners of multi-family buildings, in April 2019.

In the second reporting year for each of those sectors, the Energy Commission will use the information reported in that year to make a public website, where people can see usage for buildings, as I mentioned earlier.

The data access portion of this program, so the -- Martha talked about the two portions of the program being the benchmarking and the code baseline issue. Even within the benchmarking part, we’ve got the whole building data access part, and the benchmarking
public disclosure part.

So, the data access provisions make it possible and, hopefully, much easier for local jurisdictions to create their own benchmarking programs, if they’d like, which are more stringent than the statewide requirements.

And we will work with the locals to -- so they can send the data, that they get out of their program, to the State, so we can include it on the State website. And so, owners of buildings, in those jurisdictions, won’t have to report twice. They’ll just report to the local jurisdiction. They information gets to us, and it will go on the statewide website. So, that’s 1.2.

And, lastly, 1.3 is minimum standards and best practices for building performance assessment tools. The first thing, here, is that the Energy Commission is working to establish criteria, and methods, for products that deliver energy efficiency data analytics, using advanced metering infrastructure data.

So, this is important and it ties back to what Martha was saying, earlier, about the code baseline. So, this, the Smart meter data gives us more accurate -- a more accurate picture of the building’s performance, both before and after work is performed. Rather than using a database of assumed, or deemed savings, this
shows actual savings.

And so, with that, comes — you know, with the increased granularity comes, you know, we need to make sure we’re consistent in how we’re using this data. And so, that’s the purpose of all of this.

2017, we’ll establish a test bed for checking out this — for checking out the infrastructure, and then there will be pilots to test it.

Energy audit tools for small and medium, nonresidential buildings. The Energy Efficiency Center, at UC Davis, is developing stakeholders, who are interested in improving the market for improvements in this sector. They’re working with high school, community college, and university students to perform audits. And they’re working on setting up programs that can be performed — they’re intuitive to use, so that not a lot of training is required to perform the audits. And they’ll be available and no, or minimal, cost to the building owner.

And, also, as part of that program, they’re developing the Building Energy Performance Auditing System, which can be run on a tablet, use a standardized form so that the folks, I mentioned earlier, can perform these audits and everything is pretty standardized.

And, so, both the program is both easy to use, and the
outputs that the people are seeing are standard, as well.

So, that concludes 1.3 and Albi -- and Abhi’s going to come up and take it from there.

MS. BROOK: So, just wanted to -- if you want a copy of the plan, to work off for the next few hours, could you raise your hand and we’ll make somebody go, make us copies. If you already have -- one, two, three -- okay, I can’t count that high. Ten, okay. Okay, thank you.

MS. WADHWA: Good morning, everyone. My name is Abhi Wadhwa. I’m with the Existing Buildings Unit. I am officially 39 weeks pregnant, so if I run away in the middle of the presentation, do not panic. Okay, so I will cover one more strategy under 1.3, the Home Energy Rating Systems. As mentioned in the 2015 plan, we had a very clear vision that we wanted to distinguish asset ratings from assessment tools. And I’m happy to report there’s been a lot of good work, led by Martha Brook, from Energy Commission, in this regard. And I wanted to give a quick update on that.

So, while all of this will be addressed in the HERS rulemaking, our initial work is to, first, find out what is the feasibility of having a different asset rating approach, in California.
So, the work we did in late 2015 was with the Residential Energy Services Network, to address the inconsistencies between RESNET HERS and California HERS, too. As a result of that, we ended up promulgating an energy designed rating in the CalGreen, in the 2016 CalGreen standards, and made it consistent with the RESNET 301 2014 Standards.

The biggest impact of this was that the energy efficiency and fuel type specified in the reference home, on both of these standards, is now consistent. And that gives us a strong base to start doing similar work for existing buildings.

Because one of our visions is we don’t want a separate rating system for existing buildings versus newly-constructed buildings. It should be a continuous scale, so that the future ZNE goals are being kept in mind, as well as market confusion is avoided.

So, that was some work that we kicked off. And, in mid-2016, we also started working with RESNET on the existing buildings part of this. So, probably in the next update, you’ll hear some good news on that. Again, the idea is not to create too many disparate ratings and cause market confusion.

So, I’m going to jump to Strategy 1.5. That is our work in Building Energy Efficiency Standards,
Development and Compliance.

One of the things Energy Commission is considering is to examine more types of buildings in the cost effectiveness analysis for the Building Standards, in the 2019 Standards are to create more comprehensive and nuanced requirements for additions and alterations. We realize that the existing buildings are way different than newly-constructed buildings, and these nuances need to be addressed.

Another thing, in response to 802 and 350, we’ll begin considering in 2019 Standards, is whether it’s appropriate to use a different discount rate for existing buildings. That’s not currently being considered in the standards.

Because the decision making drivers, from building owners or tenants, are significantly different than what might be in newly-constructed.

A little bit of update on water end use efficiency. Last year, Energy Commission adopted standards for toilets, kitchen, lavatory faucets, urinals. And also, towards the fall of last year, tiered standards for shower heads. Our savings, estimated from these -- the details are in the plan.

I’m on page 19, if anyone wants to flip over.

And then, these standards were also adopted by CALIFORNIA REPORTING, LLC
229 Napa St., Rodeo, California 94572 (510) 224-4476
the California Building Standards Commission, which is a great reinforcement of the work that happens in energy efficiency standards. So, really good to see that.

Coming forward, the efficiency standards we are considering investigating, just as a heads up, is an irrigation meters, and looking at the potential standards for irrigation controllers. They are probably expected to be adopted in late 2019.

I’d like to speak a little bit about what work is being done to address building efficiency standards compliance shortfall. So, there was a lot of good work done by -- oh, just aligning with the different organizations that are working in this area. The California Building Properties Association, CBIA, California Building Officials, WHPA, Western HVAC Performance Alliance, did a (indiscernible) -- with Energy Commission support. Oh, when was that? Four or five -- four months ago.

And started, with our support, and with looking at Action Plan strategies, they started formulating a plan for increasing compliance, especially in the residential HVAC sector. Some of their recommendations are mentioned in the Action Plan. This is page 21. And we have referenced their report, so that might be worth looking at.
And, again, if you have any further feedback on this, if you feel like an area has been completely missed by us, or we’re not addressing it, we’d love to hear from you. This is a -- savings in this particular niche are huge. We understand that HVAC residential compliance is a big area for capturing savings. So, we look forward to any innovative ideas in this.

A quick touch base on plug load efficiency. Our Appliance Efficiency Office are really -- is a leader in California, not just the nation, but I think worldwide. The latest standards they are thinking of adopting, they’re considering our computers, computer monitors, and signage displays. It’s getting more and more aggressive for them. You know, they’ve done a number of standards in appliance efficiency, and so to speak, the low-hanging fruit is gone. And now, the focus is becoming more on an integration of software and hardware components.

For computer standards, in particular, they’re looking to reduce idle mode consumption, by taking advantage of the sleep states in new process technologies.

Other standards they’re considering are televisions, game consoles, imaging equipment, (indiscernible) -- servers and network equipment.
I work closely with the manager in that, and I know they really scratch their heads to be like, where else can we find savings. So, it’s really great to know they’re on top of this.

Just overall, in a broad sweep on appliance standards, they’re considering how standby and power factor standards could apply to appliance efficiency, overall. Again, this is like a marriage of software and hardware standards. That would be very interesting to see how they come up with that.

And just, incorporating demand response into appliance efficiency, and devices.

They’ve done some great work in enforcement, but I’m going to skip over that. It’s like us being hammers.

One really interesting effort that came about in the market transformation space was these online marketplaces that utilities created, recently. They are sort of the online version of efficiency shopping, which is hosted through the utility website. I believe we give examples from three utilities, SDG&E, PG&E, and LADWP, in the plan.

And what they’re trying to do is bring the customer to buy the product through the utility marketplace, which allows the customer to see, not just
what is the predicted efficiency of an appliance, but also to be able to apply for the rebate right there. So, it streamlines the process. It makes the shopping experience more simplified, and it establishes that ongoing customer relationship. There’s a mention of that in the Action Plan.

And I think that was my last strategy. Who’s up next?

MS. BROOK: Sorry, this Goal 1 is rather large, compared to the other goals, so we split up the talking. Hopefully, to help you out and so you won’t get quite so tired of hearing us talk.

So, I’m going to cover Strategies 1.7, 1.8, 1.9, and then we’re going to open it up for public discussion.

1.7 is Local Government Leadership. And there’s just a lot going on in this space. We’re super excited about local government innovation, and access to resources to really engage with their communities.

So, we mentioned -- well, we introduced the concept of a local government challenge, in the 2015 plan. And in the update, we basically just announce that we did get legislative direction to proceed with this grant program. And we’re going to be rolling it out in 2017.
I don’t think there’s any -- oh, there we go.

Thanks.

So, the important thing for us, anyway, when we implement the local government challenge, when we originally, you know, thought about it, we really wanted it to be kind of twofold. Resources to the local governments that really are hurting for resources to enforce the building standards, and appliance standards, to some extent. But, really, just getting everybody a lift in terms of the resources they need to think about energy efficiency, and do effective implementation of efficiency.

But then, we also wanted an innovative section of the challenge program to really push cities, and counties, and special districts to go outside of the box, and to go after some of that, you know, private capital, and other innovative strategies that aren’t happening elsewhere in the State. And we still want to do that.

So, the good news is that there’s also been a hot, new -- a lot of innovation and forward thinking in the Investor Owned Utility Ratepayer/Local Government Partnership Program. So, they also have innovation points, and extra resources for innovation.

And so, we’re going to be working with the
Public Utility Commission to really figure out where the gaps are, and what really needs to happen, with our grant program, to get incremental, and out-of-the-box type of savings implemented in the State, in local governments.

We also have the California Air Resources Board, who’s been doing climate action with local governments. And one of the things that they have been doing is they have a Cool City Challenges, where they’ve been working with their partners, across the State, and Energy Upgrade California, to kind of build a competition between cities. And cities can wave the flag when they win the challenge. And a lot of good -- a lot of good, you know, engagement with their communities are happening through the Cool California City Challenge.

There’s also been quite a bit of voluntary REACH standards adopted in local governments. So, this allows local governments to show their leadership by requiring new construction, and larger renovation projects, to go beyond the statewide minimum standard, to achieve additional energy efficiency. So, we’re really proud of the efforts local governments have been making in that area.

We highlight, in this section of the plan update, City of Berkeley’s Energy Saving Ordinance. So,
they have -- they actually have a requirement that
there’s an energy audit, or a home energy score produced
by every home that is going through a real estate
transaction.

And we also have been working with partners,
across the State, to integrate building energy
efficiency savings more centrally in climate action
planning that local governments are required to do,
under their mandates. And so, we’re proud of the effort
that we’ve made with the Open Source Urban Footprint
Tool, which is a land use planning tool to embed more
granular, more robust estimates of energy efficiency,
and energy efficiency potential in a land use and
climate action planning scenario.

The other thing I’d like to highlight in the
Local Government Leadership Section is this idea that
energy efficiency can be used for air quality
mitigation. So, different Air Districts, around the
State, have been piloting investments in energy
efficiency as air quality mitigation strategies.

And the Coachella Valley Project is one that’s
been very successful in doing air sealing, and home
insulation, at relatively large scale, to mitigate new
developer projects in that constrained air district.

So, we think that’s just an excellent example
of, you know, incremental energy efficiency savings that isn’t tied to ratepayer programs. So, there’s a whole different reason why energy efficiency has value. And we know that energy efficiency has air quality mitigation benefits, and so, we’re happy that this is being explored.

Now, one of the ways we’re going to strengthen this, over time, is to collaborate with the air district body that sets the protocols for how things can be exchanged in a, you know, air quality mitigation framework. So that we can -- they can trust and we can trust that those savings are real, and not paper savings.

And so, we’ll be working with air districts, in the future, to establish protocols for you can use energy efficiency for air quality mitigation.

COMMISSIONER MCALLISTER: So, hey, Martha, a quick question. So, Berkeley has this innovative program, which I don’t think is -- maybe it is, but I’m not aware of it being linked to this sort of transaction evaluation, you know, requirement.

But they, for a long time, have -- you know, they have a public policy interest in retrofitting, doing earthquake retrofitting, shear walling, and all that, in their homes. And they’ve used the transaction
tax to encourage that. So, you know, the buyer and the
seller share this transaction -- the transfer tax. And
the half that belongs to the buyer, they can get it back
if they spend it on earthquake retrofitting.

And so, I’ve found that to be just a genius
policy because it’s sort of taking this transaction,
aligning incentives, perfectly, to do something with
strong public policy benefit. And they have really high
participation. And, you know, you have a year to -- you
have a year, after you buy the house, to do it. And
show then show the City you’ve done it, and then they
cut you a check for your transfer tax.

Are you aware of that kind of thing being done
for actual upgrades of buildings?

MS. BROOK: I don’t know of any. But it would
be great to hear from our community here, and on the
phone, whether they know of such things.

COMMISSIONER MCALLISTER: Yeah, so that’s like
an example of just -- you know, there’s real thinking
out there --

MS. BROOK: Right.

COMMISSIONER MCALLISTER: -- and nobody knows
sort of everything that’s going on. So, really, this is
an opportunity to, you know, scrape all the experiences
into the bucket.
MS. BROOK: Uh-hum.

COMMISSIONER MCALLISTER: And figure out what we can then recommend as, you know, going forward in the right way.

MS. BROOK: Yeah, and the other -- I think the other benefit of the Berkeley program, they’re working with the Bay Area Regional Energy Network to, basically, establish the connection between that home energy score, or home energy audit, and the Home Upgrade Program.

So, you know, it’s just like a seamless recommendation. You know, if you’ve got a low score, well, here we’ve got this upgrade program, you should -- we’ll help you, you know, get into it and understand your opportunities for improving your score.

COMMISSIONER MCALLISTER: Yeah, I mean, I think the place where there -- we need the most creative thinking is how -- you know, so let’s say we get a killer benchmarking program operating. You know, we get lots of evaluations of buildings going on. You know, we build it into our existing systems. We have to link that new knowledge, you know, we’ll talk about sort of all of the data-related stuff, too. I mean, link this new knowledge into actual -- the right kinds of project scoping, hand-holding support, so that projects actually take place, like out there in the real world, saving
real energy. Like that’s really, I think, the link
that -- you know, and frankly, we’re a State agency,
we’re not as in touch with, you know, the rubber-hits-
the-road project level decision making.

MS. BROOK: Uh-hum.

COMMISSIONER MCALLISTER: So, you know, what can
we do, and what can others do, to encourage that to take
place? The Local Government Challenge, I think, is a
good -- you know, for example, the smaller jurisdictions
that really need a little bit of bootstrapping, you
know, they -- if they commit to doing something, then we
want to just give them a little bit of resources, so
they can move forward. And then, help them learn from
all the other things that the more innovative, resource-
rich, communities are doing.

So, that sort of thing. So, really, a lot of
this information, and encouragement, and just sort of
empowering the local governments to do what they already
are supposed to be doing, and want to do.

MS. BROOK: Good.

COMMISSIONER MCALLISTER: So, anyway, thanks a
lot.

MS. BROOK: Thank you.

Strategy 1.8 is energy efficiency as a clean,
distributed energy resource. And this is where we talk
about the State’s early efforts to use energy
efficiency, as a distributed resource, in a utility-
procurement environment.

And Southern California Edison has launched a
procurement pilot for energy efficiency and clean energy
resources. And PG&E has proposed to use an energy
efficiency procurement avenue, as mitigation for the
Diablo Canyon settlement that they’re in the process of
undertaking.

And this, again, is a great opportunity, that we
see for new, and incremental, and at-scale energy
efficiency, potentially, is if the utilities purchase
efficiency. Rather than just go through the ratepayer
path to implement rebates and incentives.

And again, the challenge here is how do you
depend on it? How do you know that it’s truly
incremental? And, it should be counted as a solid,
robust, sustainable resource?

And those are the -- those are the iterations,
and the discussions, and the determinations that are
happening, now, at the Public Utility Commission.

So, let us know if there’s other Publicly Owned
Utilities that are considering procurement, or anything
else in this space, that we haven’t captured in our
update.
And then, finally, the last strategy in the State Government Leadership, is a revised strategy that we are calling State Policy Leadership.

So, this is where we put everything, that we know about, that’s happening, that’s affecting State policy, that really isn’t captured anywhere else in the Action Plan. And putting it here, actually allows us to track activities over time, and progress over time.

And, so, including it -- included in this section is the climate change planning that the ARB is doing, AB 32 Scoping Plan. And now, with SB 32 mandating a 40 percent reduction in greenhouse gas emissions over time.

Our SB 350, doubling energy efficiency strategy is here, so that we can track those targets over time, in the plan updates, and plan revisions, and identify issues and opportunities to accomplishing that doubling.

The California Energy Efficiency Coordinating Committee, which was established by the Public Utilities Commission to get better feedback, and discussion, on the program administrator’s rolling portfolio plans, is included in this section.

The California Technical Forum, which is trying to streamline and reduce the administrative costs of the ratepayer-funded programs, and to use best practice,
open data analysis, and energy efficiency estimate tools is included in this section.

And our long-term energy planning strategy, that was in 1.8, we moved to 1.9, because we thought it was a better fit for State Policy Leadership, than procurement. That’s really just getting our long-term demand forecasts to be more granular, both in being able to attribute efficiency savings. And also, granular, in the geographic sense, so you can understand where there’s local and regional needs for, and opportunities for, energy savings.

And then, finally, we have a proposal, that was in the original, 2015 plan, that we’re calling, right now, the Energy Efficiency Collaborative. It’s the statewide agency leadership, so that the principal, energy-related agencies can convene, and with you, and other stakeholders, to understand where the Action Plan implementation is working? Where it’s not working? What we need to do to fix it?

And we’ll be launching this collaborative, we expect, in 2017.

COMMISSIONER MCALLISTER: I want to just say something. Really, I think all of us are really interested in folks’ ideas about how this sort of oversight could work well. And I just want to exhort...
everyone to consider sort of all perspectives on what well means.

You know, the last thing we want to do is sort of create another thing, that is a meeting, that lots of people have to go to, that is sort of, you know, even worse because it’s sort of undefined and kind of, you know, meant to check some oversight box. Right? It has to be effective. Okay, it has to actually be at a level that, you know, it identifies issues that need to be talked about, and talked about those, with the right people.

And so, I think, you know, the level of formality of this thing is a question. You know, the more formal it gets, the more rules apply. And, you know, the more kind of unwieldy it gets, the more difficult it is to kind of get where we need to go.

On the other hand, we want the right people in there. So, you know, yet, you want to sort of keep it smallish and manageable.

So, there are lots of -- there are lots of different structures that could possibly work, that could be thought about here. But I want to just, really, look at this with a pragmatic approach, and what’s going to help, you know, stimulate the right conversations, but not sort of create new bureaucracy.
that then gets in the way. Right? So, I think that’s kind of the tradeoff we’re looking for.

And, you know, we have a sort of initial idea of what we think might work. But, also, very, very open to comment.

MS. BROOK: Okay. So, we’re at that point, in the morning, where we want to hear from you. And this is just the blown-up version of that implementation timeline, for Goal 1. And we’ll probably just keep it up -- keep it up, in case it helps stimulate discussion. And we’re ready to hear from those in the room, first.

COMMISSIONER MCALLISTERT: So, are we doing the blue card thing? I saw a blue card floating around. I see another one right there. So, maybe --

(Off-mic comments)

COMMISSIONER MCALLISTERT: Oh, we’re not. Okay. Well, so, I don’t want to -- I mean, not that we have to, I just was wondering.

So, Bob, go ahead.

MR. RAYMER: Yeah, thank you, Commissioner. Bob Raymer, representing CBIA, and CBPA. And also, wearing my hat, today, as industry’s rep on CALBO’s Energy Committee.

With regards to the simplification and increasing compliance bullet that you’ve got, very good
news. Earlier this year, your staff has kind of taken on, with a vengeance, a desire to reduce compliance documentation, and to also simplify the standards.

The CALBO Energy Committee gets together every six to eight weeks. Your staff has attended every one of these conference calls, and they go on for a couple of hours.

And in that, there’s been a number of efforts that have been moving forward, now. This is probably the first time, in 15 years, I’ve seen this much advancement of this critical issue.

And so, on a very positive note, that’s happening. CALBO is now very comfortable with this interaction with staff. They were very skeptical at the beginning.

I’ve got to say, as the industry rep on that Committee, they’re no longer skeptical. They know staff means business here.

And a suggestion for this is to keep doing what you’re doing. As we hit 2017, there’s going to be a lot of strained resources, as you really focus on the update of the energy regs. But to the extent that, for these one-and-a-half, to two-hour meetings, that you can maintain that level of staff representation. That would be just fantastic.
And also, with regards to compliance, you know, better compliance out in the field, with the passage of Senate Bill 1414, this year, initially, that was going to be a tracking system for HVAC systems. It was an effort to try to seek to improve compliance. Which we know, out in the field, in the L.A. Basin area, I think out of 10,000 units that were sold during a four-year period, that 480 got permits. That speaks to an issue of not only sort of an underground economy, but also, chances are, those ones that didn’t get the permits probably didn’t get the ducts checked.

And so, to the extent that we can work with the Energy Commission, and the manufacturers, and the building officials in addressing the SB 1414 requirements, we look forward to doing that.

But, once again, staff’s doing a great job this year, and we just hope that things keep moving along in that direction. Thank you.

COMMISSIONER MCALLISTER: Anybody else in the room, here? Oh, we have one more. Yeah, great.

MR. YUNIS: I’ll just put it out there that there won’t be any need for the blue cards going forward, just FYI.

COMMISSIONER MCALLISTER: Is there anybody -- do we have people on the line, and on the web? Just they
know how to raise their hand and -- okay, great.

Go ahead.

MS. GAVRIC: Good morning. Thank you. My name is Jeli Gavric. I’m with the California Association of Realtors.

And I just wanted to give a response, real quick perspective, that may not have already been expressed here, earlier.

Commissioner McAllister, you did mention the Seismic Transfer Tax --

COMMISSIONER MCALLISTER: Yeah.

MS. GAVRIC: -- in the Community of Berkeley.

And we looked it up, real quick, because representing the entire State, we don’t have the ability to track all of the different ordinances, in all the different cities around the State.

We found that it’s at 1.5 percent. And the median price home in the State of California, and it’s not even close to what the cost is in Berkeley, is just over $500,000. So, you’re looking at charging an up-front cost to homeowners, or potential homeowners, of about $8,000 for a median price home.

And that, in and of itself, can create a barrier to home ownership.

So, I would just caution this group, and this
process, from anyone looking at programs that are
successful in very elite communities, especially in the
Bay Area, where people tend to have the resources to
comply with these things. But let’s take a look and see
what the rest of the folks in the State of California,
the real working class people, what they can do to get
into homes.

COMMISSIONER MCALLISTER: Yeah. No, I
absolutely appreciate that. And, I mean, you know, I’m
not even sure we have the authority to sort of -- well,
we can recommend anything. But, like, in terms of next
taxes, those are a local issue for the most part. I
mean, obviously, States can pass laws.

But, you know, I personally participated in
that, in Berkeley. And, obviously, I’m, you know, not
maybe typical. But to the extent that there was already
this transfer tax happening in Berkeley, of one and a
half percent, you know, half -- .75 percent goes, on the
buyer’s behalf, into the City. You know, and the City
is willing to relinquish that tax if it -- you know, the
funds, that accumulate there, to those homeowners, if
they use it in a way that has that public benefit.

And so, that’s an example, I think, of a
jurisdiction that, certainly, isn’t typical, obviously.

But is thinking about how they can mobilize resources,
in their real estate market, to get investment done in ways that make sense.

MS. GAVRIC: Certainly. And we’re very open to, we’re very curious to know if there are any other programs out there, that actually don’t burden the initial, up-front costs of getting into a home, and keeps people away from that final tick in financing. That down payment part is really hard for most people to come up with. And when you’re layering, yet another tax on top of it, which is a cost that must be met and can’t be financed, that’s a real problem. Thank you.

COMMISSIONER MCALLISTER: Yeah, I mean, there are -- so the kinds of things -- you know, I’d love to have your participation on things like how can we, you know, flip that on its head and say, look, if we can decrease the down payment, or increase the top end of a mortgage amount, so that it can be invested in the building and, you know, work in ways -- these programs already exist. It’s just the participation is not that great.

MS. GAVRIC: We certainly do at the level --

COMMISSIONER MCALLISTER: Yeah, and so, if FHA, and all that is not, necessarily, that usable for people. And so, how can we create tools that actually encourage people to get in homes. And, at the same time
they get in those homes, to make the investments that
decrease their operating costs over time.

MS. GAVRIC: Certainly. And there are energy
efficiency mortgages which do that.

COMMISSIONER MCALLISTER: Yeah, yeah.

MS. GAVRIC: They increase the amount of the
loans, so that it can be paid off at a longer -- you
know, over time, so --

COMMISSIONER MCALLISTER: Yeah, so I mean a
working --

MS. GAVRIC: We’ll have to talk about that.

COMMISSIONER MCALLISTER: A bunch of
knowledgeable people that can say, well, why aren’t
people participating in that program more, and what are
the barriers? And how can it be kind of a no-brainer,
you know, and scale that up, so we can channel those
sorts of investments.

I mean, I think those are the kinds of market
relevant solutions that we want, so --

MS. GAVRIC: And if the realtors could be, at
any point, added to the group that’s participating,
actively, in this program, we didn’t notice, or we
weren’t named in the document.

COMMISSIONER MCALLISTER: Oh, great. Okay.

MS. GAVRIC: So, if we could just be added, we’d
appreciate it. Thank you.

COMMISSIONER MCALLISTER: Great. Thanks, we’ll do that. I’m sure there are places where the Association of Realtors would be a partner on some of the strategies in there. Great, thanks.

All right, go ahead.

MR. NESBITT: George Nesbitt, HERS Rater. First, a reminder that anything earlier than a ten o’clock meeting is hard.

(Laughter)

MR. NESBITT: Ten o’clock works great for those of us coming on Amtrak, 9:30 doesn’t. Neither does 9:00. It’s like an extra hour and a half early in the day.

So, when are we going to realize that the HERS Rating System is the only universal solvent? It’s the only system that is compatible with everything, energy efficient mortgage, new homes, existing homes. You know, giving the various rebate programs. Energy Upgrade California, you name it.

Yet, we don’t seem to realize it. Not perfect, as I’ll admit, and we’ve talked about, ad nauseam, in this room. But it really should be the center of what we’re talking about for residential.

You point out Berkeley as being a leader.

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Berkeley doesn’t even recognize the HERS Rating System in their New Building Energy System. Yet, five years ago, they proposed using it.

Their old -- their old ordinance actually didn’t even meet code, Energy Code. So, they’ve been really behind the times.

Compliance. Compliance is miserable. I mean, it’s something that really needs to be worked on. We’re not -- I mean, as a HERS Rater, I’m not getting calls. We’ve got mandatory -- sorry, I muted myself.

We have mandatory --

(Laughter)

MR. NESBITT: I’m not telling you where that --

COMMISSIONER MCALLISTER: Just for the record.

Just for the record, that was George.


Disclosure and benchmarking. Have we adopted the new rules, for the new AB -- what is it, AB 1103, now? No?

MR. JENSEN: 802. So, no, the regulations are not adopted, yet.

MR. NESBITT: They’re -- when will they come up for final?
MR. JENSEN: June 2017 is what we’re projecting.

MR. NESBITT: Okay. You know, really important, really important, I think people -- people need to understand their use and have a comparison. And it’s a process that has not been smooth in the past, and needs a lot of work.

One last thing, our savings goal, and our doubling of our goal, what is that goal? I think in the draft, at one point you mentioned it’s now 20 percent. But is that 20 percent of all existing building energy use? So, and where was that goal?

Because, certainly, in the CPUC Strategic Plan, for existing residential buildings, we set a target of 40 percent.

MS. BROOK: So, the SB 350 target setting is happening this year. And we have an obligation to -- I think, for the Commission to adopt those targets in 2017.

What we’re doing right now, if you want to know more information about that, and how we’re -- you know, what the baseline is, and what we expect that we need to double, the Commission staff are drafting a key issues for SB 350 implementation, a white paper, now. And we expect it will be released to the public before the next workshop on the topic. So, within a few weeks.
MR. NESBITT: Well, it would be nice if that goal was clear.

MS. BROOK: It is.

MR. NESBITT: Because, in eight years of being very active, I’ve never seen a goal.

MS. BROOK: Well, this is --

MR. NESBITT: I mean, stated as a goal for savings.

MS. BROOK: Okay. Well, so, the doubling was legislatively mandated the end of 2015. So, we haven’t been at it that long.

COMMISSIONER MCALLISTER: Yeah. Also, you know, there’s never -- so, this has never been a legislated goal. It’s always been just a policy goal. And so, in the big bowl, you know, those were very much aspirational, you know, what could we think we could possibly -- you know, possibly do, in the most optimistic version of the future?

So, now, the Legislature’s saying, okay, double your energy efficiency savings. And so, that sort of ups the level of rigor and formality that we have to use.

So, certainly, the PUC, and the Energy Commission, and everybody else, but primarily those two agencies, are in very deep discussions about what a
doubling looks like. And then, we will hold ourselves
to those goals. Like actually, you know, put together
the tools. A lot of what we’re talking about is putting
together the tools to know what’s happening, how we’re
getting to the doubling, and where it’s coming from.
And giving that conversation more rigor.

That, very much, is in line with the 758 Action
Plan, as well as the forecasting update. So, the
forecasting efforts that are in the Energy Analysis
Division, well, we’re breaking down those silos because
we’re all going to be working with the same kinds of
tools and datasets on that.

So, it’s this evolution towards more rigor, in
our implementation of the policies that the Legislature
asks us to do, is really in full swing. I’m very
excited about it.

And then, finally, I would -- once we have a
formal goal, I would expect that that would go into
whatever the next update -- we haven’t really talked
about this with the PUC but, logically, one would
imagine that that would then go into the next update of
the Strategic Plan.

MS. BROOK: Uh-hum.

COMMISSIONER MCALLISTER: So, at least I haven’t
had that conversation. But, I mean, I think it’s a fair
assumption that the Strategic Plan would, then, sort of solidify around the formal goal, once it’s adopted. So, that’s the process.

MS. HERNESMAN: I think it’s still morning.

Good morning.

MS. BROOK: Good morning.

MS. HERNESMAN: Barbara Hernesman, and I’m here to -- I’m wearing a couple hats, actually. One from my own company, Synergy Nexgen, which is focused on workforce. And then, also, for Western HVAC Performance Alliance, as a Co-Chair for the Committee. Representing myself, and Liz Jaeger, who is also my other Co-Chair, on the Existing Building Energy Efficiency Action Plan.

One, we’d really like to thank you for all of the staff that’s made themselves available to the industry stakeholders. We went through a lot of process to put together an exploratory working group that, really, is an exceptional example of what industry stakeholder engagement is. So, your staff has done a wonderful job, and actually put us to real work.

One of the things I’d like to say about, and I want to encourage, is the commitment to continue. And that means, on the Energy Commission end of it, also on, well, we call it WHPA. And also, for the CPUC, seeing that we can keep this collaboration and engagement going
One of the things that’s really important, that came out of an enormous amount of work on the compliance shortfall, in this Committee, was the takeaway is this: enforcement is the issue.

We’re doing a great job on identifying what the issues are, but how do we get to enforcement?

So, I want to really encourage that, going forward the rest of this year, and 2017 through 2019, is, specifically, to try to figure out how we can embrace and get that conversation of enforcement dealt with, so that everybody can get at -- get at the action.

One of the things that we were talking about, also, was, in the Action Plan, is when we talk about pilot programs, is making sure that they’re properly sourced. And that doesn’t mean that that has to sit on the Energy Commission’s shoulders, only. The conversation has talked about private and public engagement, and collaborations, of all the different types of funding sources that are out there. And bringing them together, to make sure that we can actually hit the workforce that we’re talking about.

Many will fall into one line, and won’t fall into another. So, how can we work collaboratively, together, to make sure that we make this a comprehensive
approach to workforce development, since this on the backs on the boots on the ground to get it done. So, we really need to keep that focus. And we really encourage that that becomes a priority, also, in the comprehensive and alignment for funding sources.

So, the other thing I would -- there was one other point that I was saying that I thought, between the discussion today, was your statement, Mr. McAllister, was effectiveness. I can’t tell you how many times that term comes up in these collaborations.

But it’s not just the effectiveness that we’re concerned about, is it’s a hand-in-hand motion, effectiveness and scalability. We can’t get there, unless we figure out what that’s going to be and how to embrace that.

So, what I want to say is, we’re really excited to continue our work with the Commissioner, and also, your staff is exceptional. And so, thank you for the opportunity.

COMMISSIONER McALLISTER: Thanks, Barbara. I’ll second that about staff, by the way. I think we’re moving in a really good direction. We could always do better. But I think the sort of team mentality and the -- you know, the embracing of what’s really a new paradigm in terms of, you know, trying to figure out
what works. You know, it’s not just about regulations, it’s about helping the marketplace function. And I think that’s sort of, I think, a mental shift that we’ve made, and it’s really having a big impact.

So, thanks to everybody on staff, as well.

MR. JENSEN: Okay, folks, it looks like no one has their hands up on the WebEx. If anyone on the phone wants to speak, we’re going to unmute the phone lines, shortly. So, please, if you don’t want to speak, please mute your phone on your end, so that we don’t get your background noise when we unmute.

All right, Laith, let’s go ahead.

MR. JENSEN: So, go ahead on the phone, if you’d like to speak?

Okay, second call, anyone on the phone?

MS. ETTENSON: Hi, this is Laura Ettenson, from NRDC. I’d like to make a quick comment.

COMMISSIONER McALLISTER: Yeah, go ahead, Laura.

MS. ETTENSON: Hi. Thank you, so much, for all of this work. I would just like to note, in particular, in the statewide collaborative, which you know I’m a huge fan of that idea, there are a number of best practices out there that will submit as part of our comments. And agree with you that there’s a balance between the legality of being too formal, but also being
open enough to allow the right people in the room. So, we work forward to working with you, on developing that.

We also will provide some specifics on the plug-load appliance section, where we think there should be strong and more specific goals, and the process by which to achieve those goals. And we’ll work, also, with your team, on developing those that are objective, and aggressive, yet achievable.

And the other thing I’d like you to consider, just overarching with all of this policy change, is that a number of the things that I skimmed through, in the report, that encourage more connection with the customer-funded programs at the CPUC, which we definitely support, if you get into things, like the statewide Executive Order on State Buildings, then you hit that challenge of the policy. That, if it were mandated, then the utilities, or any of the program administrators, or their third party, or their local government partners, couldn’t actually use that, can’t claim the savings from that because it has to happen, anyway.

So, I encourage those type of policy issues to be of the top priority, when we come up with the statewide collaborate, so that we can really fix the policies that are inhibiting us all working, a lot more
seamlessly, together, toward our common goal.

And we’ll provide more specifics in our comments. And thank you, for the time, today.

COMMISSIONER MCALLISTER: Thank you.


MR. YUNIS: All right, hello, everyone. My name is Laith Yunis, with the Existing Buildings Unit. As I said before, I’m going to be going over the Goal 2, Data-Driven Decision Making.

You’ll see three bullets on the screen, here, but I’m going to kind of go through the update that talks to each one, and then we’ll have the slide that talks about the timeline, after that.

So, as Eric mentioned, there’s AMI data availability, under bullet one, here. Each Investor Owned Utility, electric utility that deployed AMI to its residential customers, have also enabled customer-authorized third party data access.

California utilities continue to make progress towards providing online energy management services, to help customers access and manage their utility bills.

A second aspect of this first bullet is metered or building mapping. This has come up a lot in our AB 802 workshops. And we’ve, actually, initiated a working
group with utilities, the CPUC, and other organizations
to try to improve the process and move forward. The
idea of mapping meters to buildings, as you can imagine,
this is a very important aspect in understanding what’s
included in that building and how to improve that
building.

The next one I have is Easing Efficiency
Programs’ Participation Burden. Program administrators,
for California IOU Ratepayer Programs, have taken
strides, over the last two years, to reduce time and
process requirements for customer participation.

You’ll be able to find that in the Action Plan
update, under -- on page 41, there’s several bullets
that we go through there.

And targeting customers for program
participation is detailing program administrators,
providing information and support to trade
professionals, and energy service providers, to
facilitated these industry partner promotions, and
engagement of customers with regard to rebate,
incentive, and technical assistance.

Lastly, on bullet one, behavioral savings. Over
the last several years, we’ve seen California utilities
increase behavioral savings programs for their
residential customers.
For bullet two, one of the items that our staff has been focused on is statewide building identification nomenclature. The Energy Commission is exploring opportunities to leverage geo-spatial, and other relevant data, to develop unique building identifiers. This is similar to a VIN number, a Vehicle Identification Number.

But what this will allow is a building identifier to be used, to act as an interconnect of various datasets. Very important, when you have buildings with multiple street addresses, and multiple formats for those addresses.

And then, the last bullet, I have four topics that we touch on in the Action Plan update. Standardized rate information from utilities, Department of Energy, and NREL, launch a nationwide -- or, excuse me, a national working group, with the goal of standardizing utility rate data, making it more accessible.

This group will evaluate standard formats for machine-reading structures, to collect and transfer that data.

Another item that the Energy Commission’s been focused on is data exchange protocols. We, internally, call that the Standard Data Dictionary, SDD. It’s been
a progress, over the last eight years, and it structures
the properties of those data fields, and defines all the
components of a building, that are evaluating in
assessing its energy efficiency.

Public-facing energy efficient program
information. The CPUC has developed a new, online data
processing tool, called CEDARS. It’s California Energy
Data and Reporting System.

This modular design, of the CEDARS platform,
enables development of complementary data
standardizations, and processing features over time.
Such as work papers and evaluation datasets.

And, lastly, for the third bullet here, we have
energy consumption baselines. Martha touched on it,
briefly.

CPUC is working with the Energy Commission on an
agreement to securely provide 10 years’ of IOU customer
consumption data, collected for evaluation. This Energy
Commission -- with this date, the Energy Commission
plans to develop macro consumption models, and publish
weather-normalized distributions.

So, I kind of recapped the main focus of the
data goals into these three main buckets. It starts on
page 45. This is the timeline that we were able to pull
from that overarching schedule.
And what we are looking for is feedback,
especially in the later years, as Martha mentioned.
Because, as we get out past 2020, we’re having a hard
time conceptualizing what that would include. So, we’d
love to hear feedback on that. And I’ll leave this up
on the screen.

Thank you.

MS. BROOK: Any comments, at all, on Goal 2, of
the Action Plan Update, from the room?

MR. CALDWELL: Good morning. I’m Jim Caldwell,
with the California Community College System. And I’m
part of a team, of 10, that helps educate students,
community college students, for jobs. All the way from
the generating plant to the wall socket. And for the
natural gas domain, and for the wastewater domains, as
well.

We also administer the Prop. 39 Workforce Fund.
Currently, 60 colleges are training workers,
specifically for competencies dictated with Prop. 39
implementation.

I want to ask you -- well, first of all, let me
express my appreciation for allowing me to speak today.
I also want to thank you, Commissioner McAllister, for
your availability at workshops that have been held
around the State, on this very issue.

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And to the staff, Martha, particularly, for your engagement with the various discussions that are going on around the State, on this topic, as well.

I’m going to take a little bit of a different tact here. I know this is about data that relates to buildings, and efficiency in buildings, but I want to -- so, what I’m really going to talk about is a little bit in Goal 3.3. Where I’m really appreciative of the fact that we’ve included an element for data-driven decisions about investment in workforce.

Because I think that’s really a crucial area, and I want to highlight, a little bit, why that is so crucial. And I’m going to start with a kind of a misdirection here. If you can imagine, all of us in the room, that you’re part of -- you’re the executive team of a manufacturer of HVAC systems.

And does everybody got that? You’re a manufacturer, now. You’re not in your old job. And, of course, you need data to be able to run your company.

And you start looking at the data and you see that there’s great upside potential that the market demands 50 percent more product than the sum of all the manufacturers can supply for that particular market. Great upside.

But then, you look at your product and the data
says that your product isn’t really compliant with any particular industry standard. And so, that’s kind of a problem. Right? I mean, you’d think that standards have to be there. And 80 percent of the product in the field needs to be retrofitted. That’s kind of a problem, too. Right? I mean, that’s a big financial challenge. So, what do you do?

Well, that’s actually the question about workforce, because what I just talked about isn’t a manufactured HVAC product. These are HVAC workers. That’s the characteristic of our HVAC workforce.

Only 50 percent of our HVAC workforce complete either an apprenticeship program, or a community college program or, you know, a private institution training program. Only 50 percent.

Two-thirds of the current HVAC workforce, and this is date from Western HVAC Performance Alliance, and others, two-thirds of the current HVAC workforce never completed an accredited program, of any kind.

And then, finally, you know, every time we do research on this area, we get surprised. So, we recognize that our friends, in labor unions, have very strong minimum requirements for folks coming out of apprenticeship programs, and in their journey level of training programs.
But if you look at the rest of the world, and you see 170 different certifications, industry-recognized certifications on the Western HVAC Performance Alliance website -- we did a study in Northern California and Southern California, over a year’s time, the two top certifications that were asked for in job ads were, number one, EPA 608, which is handling refrigerants. And, second, or somewhere in the top five, was a California Driver’s License.

None of those 170 industry-recognized credentials showed up in the top 20. So, employers aren’t really valuing any sort of standard for their workforce. We think that’s a real problem. And that’s HVAC, that’s an area where we have some data.

The bigger problem is that we don’t have data in a lot of places.

So, for facility managers, we were hearing that, you know, industry can’t get enough facility managers. So, my team commissioned some research of L.A., Orange, Riverside, San Bernardino Counties, and we found that the annual demand is 3,200 facility managers, 3,200.

And the supply, from all the training organizations, is less than 100. So, it’s a huge gap. I mean, and the problem is that none of the standard labor market data, you know, from EDD, or BLS, shows any
of this. So, how do you invest, you know, if you don’t have the data?

How many other occupations are like this? Like facility managers, where you don’t have a clear set of data for that particular occupation. Control system specialists, commercial energy auditors, energy managers, commercial building inspectors.

And then, if you look at electricians, huge category. How many are working in substations? How many are, you know, working residential, and everywhere in between? So, it’s a big deal.

The other issue is that not only is the data hard to get, there are no common metrics that tell us how well we’re doing against the State’s energy mandates. I mean, we have some pretty strong data collection and analysis tools at the community colleges. And we’d like to share those with folks.

We would like to be part of a leadership group that looks at data, looks at metrics as a way of investing in the workforce. So that, if it is a barrier, if workforce is a barrier to our energy mandates, and it looks like it is, then how do we fix that? You know, what does the data really tell us? What metrics can we use to demonstrate process toward a higher quality workforce, in making progress towards the
State’s mandates?

Thank you.

COMMISSIONER MCALLISTER: Great. That’s terrific. Thank you, very much. So, I second many of the ideas in there.

But I want to -- I think we’ve evolved. As this conversation has gone forward, I think we’re definitely evolving, I know I am. But I think, you know, there’s been a rich discussion, really, since the original Action Plan came out, about, you know, how we can do what we were talking about before, which is to scale the marketplace.

And one part of that is not imposing lots of costs on it, lots of additional costs on it. So, people can actually feel like doing a project is something that they can afford, and that they want to do, and it’s not -- the hassle factor isn’t huge, and all that.

But that, also, how do we get to a point where, in doing that, we still focus on quality? And so, how do you balance those two things?

And I think the workforce is right in there, in the middle of that conversation.

But I don’t think -- I mean, I, certainly, don’t have the answer. I don’t think any one person really has the answer. But how to -- you know, in each market
segment, how to sort of find that balance.

But I do think, you know, we need to figure out ways to enhance the quality of the service and make it more uniformly high quality, that people are seeing. I mean, we have a branding problem. You know, really, with existing building retrofits, we have a branding problem. People don’t -- you know, it’s basically like going to the dentist, you know, doing a project in a building.

So, we need it to be more like, you know, I don’t know, the toy store. I don’t know what the metaphor is going to be, right, but have it be a product that people want, desire, and go pursue. Rather than have it be something that they do because they sort of have to, and they don’t really want to.

Obviously, different, commercial, residential, et cetera. But one version, or another, of that, I think is generally what we’re confronting. And so, how do we get -- the scale really needs to be -- we’ve got, many, many more decision makers have an impression of this activity, that is a very positive impression.

And I think what you’re talking about -- well, many of the points you touched are sort of along those lines. If we knew more, we could know where we stand and know exactly what to do, to get to that point, to
help develop the marketplace in that direction.

So, you know, maybe the concrete discussion is to talk about what workforce-related data points, maybe, that we can sort of -- maybe it’s a Standard Data Dictionary kind of problem, kind of question. You know, what should we be tracking, you know, as we move forward?

But maybe there’s -- maybe I missed some of the stuff, because I’m sure I don’t know as much as you guys, or Jim.

MS. BROOK: No, I think that’s a great segue. I was just going to -- this is Martha Brook. I was just going to mention that in Goal 2, we can definitely add a strategy, and introduce it as workforce-related data, and metrics. And, you know, define the metrics, and collect the data to calculate the metrics. And then, the rest of the strategies, related to that, stay in Goal 3, under workforce and workforce --

COMMISSIONER MCALLISTER: Yeah, that’s interesting.

MS. BROOK: But we make the connection between the data and the workforce needs. I think, which we haven’t, really, articulated that.

COMMISSIONER MCALLISTER: Okay, yeah. So, that’s a good way to put it. And then, maybe, Jim, you
can help us sort of figure who really is essential to that conversation. I know, you know, Carol Zaben (phonetic) and some others are.

MS. BROOK: No, absolutely. And I know, I just have to mention that the Coalition for Energy Efficiency did provide, probably, this exact recommendation. We were unable to process all of the recommendations from the Coalition in this first draft. So, we can definitely follow up with that.

Thank you.

George?

MR. NESBITT: George Nesbitt, HERS Rater. So, data I would like to have, as, you know, a professional, ideally I would have data available to me. So, if I’m working on a single-family house, I would have data that I could compare to similar houses in the area.

So, we need data, essentially, ideally, on zip code, city, county and, of course, at the State level. And broken out for things like single-family versus multi-family, obviously, different scales.

MS. BROOK: Are you talking about usage or are you talking about characteristics, or both?

MR. NESBITT: Usage, first.

MS. BROOK: Okay.

MR. NESBITT: I mean, just having, in average,
kWh and therms, gives you a lot.

MS. BROOK: Uh-hum.

MR. NESBITT: And, ideally, enough detail that you can compare -- you know, that you’re not comparing a 1,000 square foot house to a 10,000 square foot house. So, you have, actually, a relatively good point of reference.

MS. BROOK: Uh-hum.

MR. NESBITT: It’s probably also nice to know a little bit about seasonal variation of use. But too much data is not always useful. I mean, just because we have 15-minute data, on a lot of buildings that have Smart meters, doesn’t mean that’s useful to all of us, all of the time. Although, it -- you know, in aggregate, it might help us understand, you know, certain patterns and whatnot. Although, we know that from the grid.

We also have to remember, garbage in, garbage out. The problem with data is, if it’s bad, it’s bad. And with things, like net metering, you’ve got behind-the-meter generation, you know longer know what the consumption is, unless you actually, also, know what the production is. So, we have to be careful in that sense of, you know, we’re looking at something, but we’re actually not looking at the whole thing.
Billing month versus a calendar month. The problem is we’ve -- traditionally, we’ve been billed. We have a certain billing date, so the data we get is based on the billing period. Yet, when you come to the times of the year where you’re seasonal heating, or cooling things, come into play, if you’re trying to compare it, actually, on an actual month, you’re sort of averaging and trying to make assumptions as to where it happens.

Whereas, with -- most of us have Smart meters, now, we should be able to get data in a calendar month. It would make a lot more sense to give data in a calendar month. And it shouldn’t be hard to give the cost for the calendar month, as opposed to billing period. And I think that just make -- you know, because so much of what we do, when we’re comparing things, we compare it by the month. You know, Energy Star, you know, a lot of things. It’s just we usually talk about months, rather than billing periods.

And just a comment on the whole idea of pay for savings. And, yes, we want real results. That’s what we’re ultimately after. The thing is, pay for savings is definitely going to favor larger entities. There’s more wasteful energy users. There’s, not exclusively, the rich.
People, like myself, who are very energy conservative. I mean, I should start heating my house. That way, I can show I can save a lot of energy. And the way this program is getting sold, in part, at the moment, towards contractors, is that potentially their rebates could go up. That, on average, people would actually get a higher rebate under pay for savings, than under the previous program. Although, we still have the whole issue of results we actually achieve versus those we predict. And so, predicting real savings, are we any better at predicting real savings than not save -- than fantasy savings? And I just want to say, we’ve had access to data for a long time. Online, utility account, PG&E, for at least 15 years. It used to be you could get more data online, than you could get if you put in a formal paper request for someone’s information. Now, they’re actually giving you even more data online. Like, I think I just got five years’ of data, recently.

MS. BROOK: Uh-hum.

MR. NESBITT: The process of trying to get that data for my own house, for my own account, into Energy Star Portfolio Manager, was extremely difficult. It’s just, often, it’s our processes are so difficult, you
know, that it’s time consuming, it’s confusing, there’s problems, and things don’t work. And, for some reason, it’s not automatically updating, which I haven’t gone back to figure out. But those are just some thoughts.

MS. BROOK: Thank you.

Anyone else here, in the room, before we go to the phone?

Anyone on the phone, Eric?

MR. YUNIS: We’re going to be unmutes the phones, now. So, if you are remote, on the phone or WebEx, please be sure to mute your line, unless you have something to comment.

UNIDENTIFIED PHONE SPEAKER: You know what my problem is --

MR. YUNIS: Did you catch a user name, by chance? Again, anyone that’s listening remotely, please be sure to mute your line, because we’ll get to hear your whole conversation.

UNIDENTIFIED PHONE SPEAKER: (Unrelated comments) --

COMMISSIONER MCALLISTER: Everyone who doesn’t want to talk to the Energy Commission, should probably mute their phone.

MR. YUNIS: Okay, I think we got them muted. Is there anyone who has any question or comment?
MR. OKADA: Hi, this is Derek Okada, from Southern California Edison. Can you hear me?

COMMISSIONER MCALLISTER: Yeah, Derek, go ahead.

MR. YUNIS: One second. One second, let me mute one more person.

COMMISSIONER MCALLISTER: Wait just one second, we’re going to have to mute one more line. Yeah, go ahead.

Hold on, just a second, we’re going to mute the lines, individually, so that we can hear you.

We have three layers of technology, here. We have in-person, we have web, and we have phone. And I think we’re wanting to migrate towards web and in-person.

MR. YUNIS: That sounds good. Thank you, Eric. Just to keep in mind, we probably had to mute five or six lines there. So, those who are hearing us, please mute your line, if you have nothing to comment.

Go ahead, I think it was Derek?

COMMISSIONER MCALLISTER: Oh, did we mute Derek?

MR. YUNIS: Any questions or comments to the group?

COMMISSIONER MCALLISTER: The representative from Southern California Edison, you can go ahead.

MR. YUNIS: Okay. Any other comments,
questions, on the data-driven decision making goal?

COMMISSIONER MCALLISTER: I do want to make sure, so do we know what happened just then, because somebody did want to comment.

MR. YUNIS: He’s not muted.

COMMISSIONER MCALLISTER: Okay.

MR. YUNIS: His WebEx sign is not muted. So, I don’t know.

COMMISSIONER MCALLISTER: Oh, okay. So, the representative from Southern California Edison, I want to make sure you do have a chance. If not now, then before the workshop’s over. So, hopefully, we can get you back online.

MR. YUNIS: Derek, we’ll send you -- if you can hear us, we’ll send you a chat message for your question, as well.

Are there any other questions or comments on this goal?

Great. Thank you so much.

MS. WADHWA: Hello, everyone. This is Abhi Wadhwa, from Energy Commission, again. I’ll be starting on an update to Goal 3. Thank you to Jim Caldwell for actually kicking that off, and to Commissioner and Martha for leading me right into this discussion.

I did want to mention that, like Commissioner
said, in this plan update we offer significant changes
to the strategy related to workforce alignment. We got
great feedback. We had great interactions with the
leads and partners under this strategy. And, you
notice, a lot of new strategies, four, to be precise,
are introduced under Strategy 3.3. And also, looking
forward to more, as Martha said. We were not able to
take in all the comments, before publishing the draft.
But we’re looking forward to that, and you’ll see even
more development on this, in the final update.

So, having said that, I’m going to start with
Strategy 3.1, on Streamline and Profitable Industry.
Again, a lot of movement on this strategy because of the
new policy mandates. I’m sure a lot of you are aware,
the CPUC’s recent decision, in August of this year, to
provide and issue guidance to the utilities for the
business plan filings happened. And it provided some
significant points, which we note here.

Most importantly, it states that the default,
baseline policy will be existing conditions and not
current code, in line with the AB 802 direction.
Although, there are a number of exceptions, which are
specified. And this is proceeding R-1311005, in case
you want to note that. It’s available on the CPUC
website and sited in the Action Plan.
Another thing that the decision mentions is, in an effort to simplify program delivery across the State, which was one of our previous strategies, in addressing that, it asks that all upstream, midstream, and downstream IOU programs be overseen by a single lead administrator.

It also asks for piloting at least four more downstream programs, with 25 percent of each utility portfolio committed to these.

And, finally, a minimum of 20 percent portfolio, for each utility, must be met through third-party programs, in 2017, which should increase to 60 percent by 2020.

As a footnote, third-party programs are being defined as those that are proposed, designed, implemented and delivered by non-utility personnel.

In the same strategy, there’s also direction from SB 350 to consider hard-to-reach populations. Many of you might already be tuned into that, those workshops, that proceeding within Energy Commission. We are currently -- we’ve workshopped the Barriers Report, the Disadvantaged Communities Barriers Report, which is up for adoption before January 2017, with recommendations. So, in a few months, please look forward to that.
Jumping to Strategy 3.2, again, ties very closely to data-related strategies. This is performance-driven value. We, again, see a lot of good policy coming out of CPUC, in response to the Action Plan, under R-131105. CPUC developed a high-opportunity programs or projects framework, in late 2015, and provided guidance on using a normalized metered, energy consumption validation approach, and embedded EM&V for programs.

On page 47, of the plan, you’ll see a list of approved proposals, to date, and also those that are in the pipeline. This is a significant step forward towards achieving our previously-adopted strategy, for a performance-driven marketplace.

And on the technical side of things, PG&E, and CEC, also, collectively, contributed to the development of Open EE Meter. It’s an open source public tool that provides meter-based energy savings feedback. And, PG&E mentions that it plans to use this tool for its proposed residential, pay-for-performance HOPS (phonetic) proposal.

So, George, I hope that addresses at least one of your questions, how. It’s a beginning but, yes, there are definitely plans for tools on how would performance-based value be measured.
So, let me talk a little bit about Strategy 3.3. I’m really glad to have Jim here with us. Really glad that we got a chance to work with all the partners, and leads, in this strategy, using the plan update as an excuse. This time, you’ll see way more depth in the strategy, than before.

Mainly, what we heard from CCCO, and I think IBEW contributed, as well, is fully -- developing a fully integrated workforce alignment system. And I think Jim was echoing some of that. One that spans across training, program design, and delivery, and breaks these silos.

So, our repair programs, again, they’re not the only vehicle for this delivery. But, at a minimum, any State mandate should respond to the needs of the workforce, and also develop the opportunities for them. So, it should not be designed in isolation, and we hear that.

We also introduce a new strategy on recommending an industry-led forum. Jim, I think you were looking for this, as well. Engaging utilities and contractors, developers, training institutions to come up with non-silo solutions that are leveraging each other’s work, creating opportunities for the workforce, making employers aware of what kind of training certifications
they should be seeking.

So, in total, four new strategies are added, calling for engaging the existing skilled workforce, mapping workforce competency gaps with existing building performance issues. I think this is where we are going to develop another strategy, under the Data Section.

What kind of quantification of these gaps and building performance issues is the right, relevant data. And, leveraging existing training institutions.

Another strategy that’s added, in response to SB 350, focused on disadvantaged communities, is to create more opportunities for workers from these communities. We wanted to highlight that as a separate strategy to make sure it doesn’t just get mingled in with others, or dropped through the cracks.

So, any specific guidance, or any specific comments on that, how you feel that can be more focused, we would appreciate those comments. Thank you and look forward to your comments.

MS. BROOK: Do we have any comments on Goal 3, here, in the room?

MR. YOUNG: Good morning, Commissioner. My name is Randy Young. I represent Sheet Metal Workers in 49 counties of California.

I like the direction the plan is going, but it
still needs specific guidance and enforcement on compliance. The vast majority of existing building energy efficiency system retrofits do not comply with permit, inspection, and Title 24 compliance.

And, for residential HVAC retrofits, industry experts have estimated that around 90 percent of installations do not comply with permit and inspection requirements. One in ten is done right.

The lack of compliance with permit, inspection, and compliance documentation requirements is undermining energy efficiency efforts. Contractors that fail to pull and close permits are likely to be unlicensed, use poorly trained, or untrained workers, and to skip acceptance testing, and/or commissioning of systems. And as a result, the likely -- the work is likely to be installed poorly, and to be less energy efficient.

The Action Plan recognizes this problem and sets goals. For example, on page 6, the Plan states, “By 2018, establish baseline code compliance rate for residential HVAC replacements by 2021, and improve compliance to 80 percent”.

Also, on page 6, the Action Plan indicates that, “By 2020, retrofit project compliance with Building Energy Efficiency Standards is at 90 percent, and is achieved at a lower cost”.

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Unfortunately, this Action Plan fails to identify specific solutions. This needs to be addressed.

SB 1414, signed by the Governor, this year, has added permit and permit closure requirements to incentive programs for HVAC systems. This is a good start. Unfortunately, SB 1414 only focuses on HVAC systems.

Electrical systems, which are the number one cause of fires, and create other safety risks, need the same permit closure requirements. From an energy efficiency perspective, the lack of permit closure requirements also diminishes acceptance testing compliance and energy savings.

For HVAC installations, permit compliance regulations should an establishment of a system to track central heating and air cooling equipment sales, and installation, in the State, to verify compliance with permitting, inspection, and testing requirements. Thank you.

COMMISSIONER MCALLISTER: Thanks for your comments.

MR. KOTLIER: Hello, Commissioner. My name is Bernie Kotlier and I’m representing the California Labor Management Cooperation Committee.
And I’d like to talk about the engagement of skilled and trained workforce. But before I do that, I want to thank you, Commissioner, for time to speak today. And also, Martha, and the rest of the staff, who have done a lot of good work on the latest draft of the Action Plan. Thank you for all your work on that.

The LMCC is very pleased that the Action Plan has added in a goal to address work quality and engagement of a skilled, and trained, workforce.

However, the Action Plan needs to provide more explicit guidance on how to ensure energy efficiency retrofits are installed by that kind of skilled, and qualified workforce.

2020 is coming up very soon. Yet, as a State, we still have not adopted any requirements to ensure that a certified, high-performing workforce will be engaged to perform energy efficiency retrofits in existing buildings.

Workforce education, and training, and similar efforts to create a skilled, and trained workforce, are being undermined by policies that encourage hiring the lowest-cost workers, rather than the lowest-cost qualified workers. The continued failure to adopt skilled and qualified workforce requirements creates an economic disincentive to the firms that invest in
training.

They are the firms that lose the jobs to contractors, who hire people at minimum wage, or piece work, and those firms do not invest in training because they can’t afford to.

California is, therefore, subsidizing contractors, that do not invest in training, by spending tax dollars on projects that do not optimize or achieve the expected energy savings.

Actions and milestones need to be adopted, to begin meeting the State’s work quality goals. The pathways to meet these goals are already set forth in the University of California, at Berkeley’s Don Vial Center, Green Economy Report, entitled, “Workforce Issues and Energy Efficiency Programs, a Plan for California Utilities”.

The CPUC-ordered, ratepayer-funded report, based on three years’ of research, sets forth specific tactics that can be implemented to increase the likelihood that energy efficiency measures and installers will be hired, not just based on cost, but also based on skills and qualifications.

The report also sets forth recommendations for ensuring energy efficiency programs provide career opportunities to workers from disadvantaged communities.
We support incorporating the DVC recommendations into the Action Plan.

Consistent with Senate Bill 350, the Action Plan should also require adoption of a responsible contractor policy, that identifies responsible contractors that invest in, and utilize, a trained and qualified workforce.

SB 350 requires the Energy Commission to, “Adopt a responsible contractor policy for use across all ratepayer-funded energy efficiency programs that involve installation, or maintenance, or both installation and maintenance, by building contractors, to ensure that retrofits meet high-quality performance standards, and reduce energy savings lost, or foregone, due to quality workmanship”.

The Action Plan should set forth a near-term deadline for adopting this policy.

The existence of education and training programs, alone, are not sufficient to effectively address the lost energy savings, and safety risks, associated with the poorly installed, energy efficiency measures.

There needs to be concurrent, corresponding requirements, incentives, and/or inducements to actually hire installers, who have received workforce education.
and training. While continued workforce education and training efforts are necessary, those efforts need to happen concurrently with the immediate adoption of corresponding requirements, incentives, or inducements to actually hire installers, who have received workforce education and training.

As WNT matures, for various energy efficiency categories, the requirements for a skilled and qualified workforce can be refined.

However, the continued development of WNT should not be used as an excuse to not adopt skilled and qualified workforce requirements in the very near term.

Finally, if we don’t ensure effective work quality, California will continue to under-perform in reaching energy savings goals. It will waste ratepayer, taxpayer, and property owner money. The Action Plan needs to ensure that it produces energy savings that are real, not just paper calculations. Thank you.

COMMISSIONER McALLISTER: Thanks for being here. Appreciate your comments.

MR. MORENO: Good morning. I’m Eddie Moreno, on behalf of the Sierra Club California.

Today, I’d like to address the stranded savings, due to poor installation, issue. The Action Plan’s goals should be updated to include a goal to reduce lost
energy savings from poorly installed retrofits.

While the updated plan notes the SB 350 goal to address the issue, it should be incorporated as an expressed goal in the plan, itself. Without addressing the quality installation issues, energy efficiency upgrades, to existing buildings, will continue to fail to achieve potential savings.

Studies have found that actual energy savings from the incentive programs are as little as 51 percent of expected savings, when evaluated post-installation.

A study from the -- for the CEC, reported that up to 85 percent of replacement HVAC systems were installed or designed incorrectly, resulting in substantial, unrealized energy savings.

Similar gaps, between expected savings and realized savings, have also been found in installations of lighting control systems. These unrealized energy savings can essentially cancel out the benefits of installing more efficient equipment, and a waste of taxpayer and property owner funds.

Moreover, the stranded, unrealized energy savings, are often locked in for the lifespan of new equipment or systems, which is often 10 to 20 years, or more.

Achieving Senate Bill 350’s existing building
energy efficiency goals is only possible by ensuring energy efficiency measures are installed, by a trained and skilled workforce.

The Action Plan’s goals should be updated to include improving installation quality outcomes, to avoid under-performing retrofits, and to adopt policies to encourage or incentivize hiring a trained and qualified workforce.

The update contains some language regarded entitlement -- engagement, sorry, of a skilled and trained workforce, but more specific language should be -- more specific strategies and metrics are needed. The first step is to adopt a meaningful, responsible contractor definition, for us in incentive programs, as required by SB 350. A meaningful, responsible contractor definition, should not just require contractors to comply with licensing and permitting requirements, but should also define responsible contractors as those contractors that invest in, and utilize, training and qualified workforce.

SB 30 went into effect 10 months ago, and the Commission still has not stated any proceedings to adopt responsible contractor definitions.

The Action Plan set forth a specific timeline -- should set forth a specific timeline for adoption of the
responsible contractor definition. Thank you.

MR. ABRIL: Commissioner, thank you very much for allowing me to speak, today. My name’s Dion Abril. I’m here on behalf of the Joint Committee on Energy and Environmental Policy.

My comment is, the incentive programs need to be aligned with, and support, permit and code enforcement measures. Providing incentives to unlawful installations encourages and exacerbates permit and code compliance problems, and undermines acceptance testing compliance.

The IOUs, however, have taken the position that the incentives should be provided to projects, even where the project has not been inspected, and the project building permit has not been closed out.

This position is indefensible. The permit is closed out when the construction project has passed final inspection. The final inspection is crucial to public health and safety.

Improper installation of hot water, HVAC, and lighting control systems can lead to gas leaks, carbon monoxide poisoning, electrical shock, and fire risk, poor indoor air quality, seismic safety risks, water leaks, and mold risks.

In addition, final inspection includes
confirmation that ducts have been tested for leaks.

Lighting controls have passed acceptance testing. And all other functional performance or acceptance testing, required under Title 24, have been performed.

Providing incentives to projects that have not passed final inspection is a guarantee that ratepayer money is being wasted on projects that are often unsafe, and do not provide the energy efficiency savings claimed by the utilities.

Requiring customers to pass final inspections does not add a burden. Customers, already, are required, by law, to pass final inspection. Requiring incentive projects to pass final inspection, simply ensures that incentives are not being provided to unlawful projects.

Moreover, customers, who refuse to comply with the law, and submit their projects for final inspection, should be deterred from seeking ratepayer funding incentives, since they are creating a public safety risk, and are failing to comply with testing and inspection requirements designed to ensure their systems meet minimum performance and efficiency requirements.

Thank you.

MR. NESBITT: George Nesbitt, HERS Rater. In 15 years, as a HERS Rater, plus or minus, I’ve only done

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one duct test in the City of Berkeley, and that was this
year. And that’s despite having installed, personally,
with permits, three systems that should have required
it.

The paperwork for that duct test took as long as
the duct test, itself. It shouldn’t quite have taken
that long, as it did, but the process is pretty bad.
So, process is something we need to really pay a lot
more attention to.

NSHP is a program where process has also not
always worked, where it’s taken six weeks to get revised
documents back to me, as a HERS Rater, so I could
finally sign off, because there’s changes. And it just
shouldn’t take that long.

We talked, I don’t know if it was in this
section, about simplifying the code, making it easier to
understand, and whatnot. I don’t think you’ve
specifically talked about it, but an area that needs a
lot of attention is the forms. We need to realize
there’s really only three forms, a 1R, a 2R and a 3R.
Not 120, or God knows, maybe in 2019, we’ll have 500.

You know, getting back to compliance, forms are
not being asked for. So, permits are being signed off
without documentation. And I think, you know, perhaps
just the complexity, and the number of the forms, is, in
part, an impediment.

So, ideally, there would only be three forms.

And the section that is relevant to, say, any subcontractor, or even if there were multiple HERS Raters, each section would be signed off by each responsible person, but it would come out in one form, you know, condensed. Not redundant.

And the ease of readability of the CF-1R Forms, for 2013, went way down. I used to be able to easily read a form. Not the Energy Pro Forms, as much as the MicroPass Forms. But the current forms are much harder. Everything’s got a box and every box is numbered but, anyway -- and I’ll just leave it at that, for now.

MS. BROOK: Thank you, George.

Anybody else on Industry and Workforce? hi.

MR. NAKASONE: He was so tall. Ross Nakasone, Bluegreen Alliance for a Coalition of Labor and Environmental groups.

Let me start by saying that we join and support the comments of Bernie Kotlier, Eddie Moreno, from Sierra Club, and Dion, from JCEEP. We’re part of that Coalition on Energy Efficiency.

In short, you know, workforce standards ensure that California’s energy efficiency efforts generate real energy savings and, at the same time, create good,
family-sustaining jobs.

Oh, and I should thank Martha. Thank you, Commissioner, and Martha, and the rest of the gang, we really do appreciate all your hard work on this update. But my main purpose here is to actually express support for the Update Action Plan’s inclusion of Strategy 3.310, to ensure that members of minority, low-income, and disadvantaged communities are provided pathways to careers in the energy efficiency industry. We certainly appreciate that.

And we’re also pleased to see that the report calls on IOUs to create inclusion programs for those from disadvantaged communities. That’s very important. As you probably are aware, this is consistent with 350’s call for coordination between the Energy Commission, and the CPUC, in developing energy efficiency programs, including workforce development and job training for disadvantaged communities.

While the primary goal is energy efficiency, right, of energy efficiency programs is to conserve energy, and that they serve as a significant -- they serve as a significant source of job generation in the State. And these energy efficiency programs invariable affect not just the number of jobs, but also, the types of jobs that are created.
And so, programs can also impact the skills and wages of those workers, hired by contractors and, ultimately, who gets those jobs. So, you know, focusing on the workforce in the disadvantaged community component, I think, is very important.

But, you know, training programs, which are a great start, don’t ensure that energy efficiency incentive measures are installed by skilled workers. Nor, does it ensure that disadvantaged workers, receiving the training, will be hired. And so, intervention on the demand side of the labor market is also needed, as some of my colleagues have mentioned.

So, you know, we’re excited, at least with the initial language that’s in the update to the Action Plan. And, obviously, we welcome your invitation for more detailed guidance on some of those strategies. So, we’re definitely going to be taking you up on that, because we feel more is going to be needed in order to really, sort of articulate, successfully, what that is.

MS. BROOK: Okay.

MR. NAKASONE: So, thank you.

COMMISSIONER McALLISTER: I want to invite all of you, as well, in the Alliance, and more broadly, but to pay attention to the Barrier Study that’s happening at the Energy Commission.
So, it’s not within the AB 758 Action Plan discussion, directly, but it absolutely is related. And, I mean, it is -- you know, the Action Plan really needs to sort of reflect the state of the state, which sort of includes the development of the Barriers Report, that SB 350 asked us to put together.

So, that process is moving forward in, roughly, the same timeframe as this update. So, they’re not sort of -- it’s a little bit to sort of walk across, between the two, in real time. But I think, in one forum or another, you know, preferably both, it would be great to sort of get your views about specific recommendations to help the disadvantaged communities. Both on the, sort of, access to the programs, and the energy savings of energy efficiency, and renewable energy efforts, but also on the workforce side, which SB 350 calls out directly, as well.

You know, if you can participate -- when that draft sort of goes public, whenever that is, you know, some number of weeks from now, you’ll have an opportunity to chip in, I think directly, there, and have an impact, as well.

MR. NAKASONE: Actually, thank you, for that, Commissioner. We have been engaged in the SB 350 Barriers Study. And I would note, now, since you’ve
invited the conversation to be opened on that, that it does not include discussions about barriers to, you know, quality jobs. Right? So, you know, this question of jobs quality and access, it has not been included in the Barriers Study. And that, for us, has been quite disappointing.

And so, that’s comments that we will be filing with the Coalition, and other Environmental Justice groups, to actually include that as part of the Barriers Study. Because at this point, in the draft that was provided earlier, it was not.

So, actually, that’s why we’re very excited about this Action Plan.

COMMISSIONER MCALLISTER: Right.

MR. NAKASONE: This is the first place that we’ve seen this job quality access discussion included as part of the planning process. So, if that can be -- if I can speak to you on that, as well --

COMMISSIONER MCALLISTER: Absolutely.

MR. NAKASONE: -- we would definitely love for that to be as part of the discussion regards to the Barriers Study.

COMMISSIONER MCALLISTER: Yeah, so that effort is a bit more broad-based, and so it’s -- you know, and this, pretty much, is within -- the AB 758 Action Plan
is pretty much within this Division, you know, and it’s got a previous history. And I think the Barriers is a little bit more broad-based, and it has somewhat different sort of stakeholders that are participating. And I’m glad to hear that you’re involved in that. But, yeah, absolutely, I think we should -- I mean, we want to make that as aligned with the 758 work, as we can.

MS. BROOK: Uh-hum. And I think, right now, in the short term, it’s like you said, it’s a little bit of timing challenge. So, we can talk about how much we can directly include Barriers Report recommendations in the plan, versus saying something more generic, like, implement the Barriers recommendations. Right, I mean, it’s kind of lame.

But we will have to publish to this plan, probably, before the Commission decides on all of the recommendations in the Barriers Study.

COMMISSIONER MCALLISTER: I was sort of thinking the opposite, actually.

MS. BROOK: Oh, okay, okay.

COMMISSIONER MCALLISTER: I was sort of thinking that maybe we could work to get some of what’s in the Action Plan into the Barriers Study.

MS. BROOK: Oh, okay. Okay.

COMMISSIONER MCALLISTER: I mean, you know, I’m
just sort of speaking out of turn, here, so --

MR. NAKASONE: We would definitely welcome the inclusion of job quality and access into, obviously, the Action Plan Update.

MS. BROOK: Okay.

MR. NAKASONE: But also, of course, the SB 350 Barrier Study.

MS. BROOK: And we can talk about that. Thank you so much.

MR. NAKASONE: Thanks very much.

COMMISSIONER MCALLISTER: Thank you, appreciate it.

MR. CALDWELL: Jim Caldwell, California Community Colleges. This update is really timely. This may be a very unique opportunity. Because of all of the things that are happening, SB 350, AB 802, Title 24, 2016 version, the business plan filings by the utilities. So, there’s a lot of things in alignment there.

If you look at funding, the Workforce Investment and Opportunity Act is requiring the Workforce Development Boards, across the State, to be more focused on sectors, and how their money gets invested in workforce opportunities for sectors.

The California Community Colleges, in
legislature, is allocated $200 million for career technical education. Not all that, of course, is for energy. But, you know, we can access part of that. And then, of course, is our ongoing investments by ratepayer funds and utility programs. So, there’s that.

And then, there’s alignment of the stakeholders that’s happened. I’m part of the Coalition, that was mentioned earlier, and very happy to be a part of that. Extended beyond that, we have partnerships with BOMA, Building Owners and Managers Association, with IFMA, with the Association of Facility Engineers. There’s, of course, Cal TCP, and WHPA. And, I could go on and on and on.

And many individual stakeholders, who have come together and said, we think workforce is a problem and we want to participate in finding a solution.

So, this is a really great opportunity, I think, that this update can be based on, and can leverage all of these -- this convergent -- convergence of forces to a great advantage.

Now, one thing, though, that’s interesting to me, is that in the draft update, of the Action Plan, there’s an item in there called “Industry Action Plan”. So, to me, it seems like you’re creating the platform, you know, the policy platform for us to come together,
with an industry-led alliance. And which, I think, Commissioner McAllister, has been your theme for quite some time now.

And I’ve asked -- I’ve asked people, okay, and starting with the IOUs, right? You know, you’re getting a lot of money, you know, $30 million a year.

Do you own the workforce challenge for energy efficiency? And they said, well, no. Of course, we can’t own it. It’s much bigger than we are.

I mean, it’s hard to imagine something bigger than the utilities, but I guess there is something out there.

You know, and I ask pretty much all the stakeholders, nobody says they own it. And that makes sense that you can’t.

But what can own it is an industry alliance, an industry collaborative that really takes hold of this and says, we, collectively, want to solve this problem. And whether that requires a new policy, whether it just requires, you know, extraordinary will, whether it requires funding, whether that could be part of these funding streams that are happening today, I just don’t know.

But, to me, that’s really, in my opinion, on the workforce side, that’s one of the greatest opportunities.
that we have is to build this industry collaborative. And we have a lot of evidence that things like this work. I mean, for us, for the utilities, for the Workforce Development Boards, and, certainly, for the labor unions. You know, there are examples where this works extremely well. And so, we’re not actually flying blind here. We’ve got a lot of experience in this area.

And, of course, we, the Community Colleges, would like to be a part of the leadership in taking this collaborative forward. So, thank you.

COMMISSIONER MCALLISTER: Thanks. Thanks a lot, Jim.

And, I totally agree. I mean, a lot of times when people talk about, oh, you know, industry-led effort, it really sort of is a -- it’s more of, maybe, a libertarian kind of thing, where it’s like, you know, get the State out of it and everything.

I want to just be very clear, that is not where I’m coming from, exactly. Right? I mean, I think it’s -- we’re really coming from a recognition that, you know, absolutely, the State, and local governments, need to have muscular policy where it is absolutely needed. Where there’s a market failure and where there’s really a need to address some common issue that nobody, individually, is going to step in and solve. Right.
And that’s -- we always look for opportunities where we can sort of help move the ball along those lines.

But on the flip side of that, where a State doesn’t have a lever to do something directly, why would we try? And I think, there’s kind of the place where industry alignment and, you know, branding, and figure out what the customer -- the market segmentation, all the things that markets are good at. Right? And that aren’t sort of government’s best role. I think needs to step into that breach. Right?

And so, I think what you’ve just said is really powerful. That, you know, there’s a -- what’s it going to take to sort of get all the pieces put in place for a quality workforce, to put together a quality product, at a price that people -- that, you know, whoever the market is, whoever the customer is can actually do. And then, feel that they’ve been well-served.

You know, and I think that workforce is right there, in the middle of that. And, I think, you know, I’ve sort of, you know, tried to look at this from a lot of different perspectives over the last few years, you know, and certainly haven’t come up with the silver bullet here. But, I guess, have just increased my appreciation of how central the sort of -- you know, the actual project, and the touch on that project, with the
customer, is, because it is fundamental to every single
project. Right?

So, I guess, you know, I really want to
encourage this discussion. And, you know, really ask
people to put all their creativity on the table, to
figure out what the path looks like, and all its
elements. Because it isn’t just a money problem. It’s
a kind of a -- you know, it’s a consistency and,
ultimately, kind of a branding problem. And we want the
workforce to, really, play a part in that.

MR. CALDWELL: That’s really key. Thank you, sir. You mentioned alignment. I mean, there’s a lot of
money there. There are a lot of different training
programs, and agendas, and workforce development
efforts. None of these are linked to each other.
Right? So, there may be overlap, there may be big gaps.

And, from what I see, very little of this is
linked directly to SB 350, or even to the current energy
mandates. You can’t really draw a straight line between
many of these initiatives and what it takes to implement
our State’s energy mandates.

So, I really appreciate your comments. And, you
know, government leadership in this would really be
appreciated. If there’s funding needed, maybe. But, you
know, there’s a lot can be done to leverage what’s
already out there. Thank you.

COMMISSIONER MCALLISTER: Yeah, for sure. And I’m not talking about taking my hands off of this. I, actually, want to be more involved. We need to know kind of where it’s helpful and where it’s not helpful. You know, so I don’t want to step on lots of toes. I want to sort of let the people, who know what to do, get out there and do it.

MR. CALDWELL: Thank you.

MS. HERNESMAN: So, Barbara Hernesman, from Synergy Nexgen. And that was a great lead in. Perfect. What I really want to stress here, in looking at what’s up here on the board, is 2019, your goal of 2019. I strongly suggest that you embed that into your 2017 pilot programs. That gives you an opportunity to see what works and what doesn’t work, get your best practices in suit. So, when you come to 2019, you’re well on your way, and then we should have all the hiccups out.

There’s a lot of us, in this industry, and WNT, who can find very innovative ways to meet this goal. So, I strongly suggest that you move that up.

The other thing I would say is this, and this has been talked about in different arenas across the State, and that is, it’s time for inter-generational
workforce. And what I mean by that is we’ve got a lot of well-seasoned folks out there, who know what’s going on. We’re going to all, at some point in time, you know, retire. And we’d like to pass on that knowledge to the workforce.

So, when we look at it, we look at it product, technology, and workforce. They’re all one. It’s not a separate entity. It’s not a separate pathway. It’s an integrated pathway.

So, we really want you to make an effort, in your pilot programs, to enforce that inter-generational relationship, because that’s where we’re going to get our scalability, and we’re going to get our sustainability in workforce pathways.

So, that’s a couple of the main things that I’d like to bring up. And I highly suggest, if we can embed those into now, it would be great. Thank you.

COMMISSIONER MCALLISTER: Thanks, Barbara.

MR. THOMAS: Hi. My name’s Steve Thomas, and I’m the Director of Training for Stationary Engineers, Local 39.

Stationary Engineers represent the people that maintain the facilities. They take care of major equipment. They take care of facilities, all State-run facilities, including this facility. We also provide
services for commercial buildings, industry, hospitals.

And I’d like to talk to you, today, about the need for additional, more skilled training, and, also, certification.

So, in the Action Plan, it talks about the State of California facility managers and building managers become familiar with and running their buildings efficiently. Well, where the rubber meets the road is they ask the Stationary Engineers to go and perform the job.

COMMISSIONER MCALLISTER: Are you affiliated with any umbrella, sort of labor union, labor group or --

MR. THOMAS: Well, we all are here, also, with the Commission -- or the Coalition that have been talking.

COMMISSIONER MCALLISTER: Okay.

MR. THOMAS: So, we’re not -- we believe in everything that they’re doing. Of course, everybody has a little bit of their own agenda.

COMMISSIONER MCALLISTER: Yeah.

MR. THOMAS: And so, I’m supporting them, but I’m also bringing up the issues for the Stationary Engineers.

COMMISSIONER MCALLISTER: Okay, but you have
your own locals that are sort of scattered around the
State or --

MR. THOMAS: The State of California represents
all the Stationary Engineers, for the State of
California.

COMMISSIONER MCALLISTER: Okay, I got you. I
got you, okay, thanks.

MR. THOMAS: So, not only the Stationary
Engineers, also, which is Bargaining Unit 13, also
Bargaining Unit 12, which includes all the trades
members, electricians, plumbers, carpenters.

And so, to provide those services, your
electricians, and the people to take care of the HVAC
equipment work in tandem.

And, of course, SB 350, when it’s coming up, it
talks about putting together a workforce that has the
skills and ability to provide the best training
available.

So, when SB 350 came through, it said that
that’s what they need. But there isn’t a true
certification program that SB 350 talks about. They
said that there has to be one. The managers and the
supervisors need to have knowledge of it, and the
workers have to be skilled in it.

Well, Stationary Engineers is way above that
threshold. We’ve come out with a textbook, which we teach in our class. And it’s Stationary Engineers Energy Conservation. So, it’s very comprehensive. And we spent years putting this together. We put this out in 2012.

And if I could, I’d like to leave this with you, with the Commission. I have a couple copies here.

COMMISSIONER MCALLISTER: Man, it’s awesome.

MR. THOMAS: So --

COMMISSIONER MCALLISTER: It’s less than $50, right?

(Laughter)

COMMISSIONER MCALLISTER: I’m going to gift this to the Energy Commission, so just FYI, on the record.

MR. THOMAS: Yes. To you, it’s free. Today, only. No.

So, you know, we have a Joint Apprenticeship Committee, the State of California has recognized, for the exact job functions which SB 350’s looking for. We train thousands of stationary engineers, that take care of all these buildings.

You’ve heard about other people. They work with the State, also BOMA. We work directly with BOMA. We have the largest contract with BOMA, with thousands of engineers maintaining these facilities.
What we’re lacking is a recognized certification program. Now, we have the skills and ability, in our training department, to put on this training, and we have. And we’ve had multiple classes.

The thing is, they can take this class all day long, will the State recognize some type of program?

Currently, I don’t think there is one. So, we’re offering this. So, you can use this as a basis or, if it needs improvement, we’d love to work with you, or a subcommittee to be able to put that together. We’d be really happy to do that.

I think it’s so comprehensive that you will find that that will put you, you know, most of the way to where you need to go.

So, we need that incentive of -- we don’t -- we’d love to put on a lot of training, and we do, but will the different agencies actually look at that and say, yes, that’s what meets the criteria set forth in the Bill? And that’s what we’re lacking.

So, in closing, I’d just like to say that for the language that’s in the Act, that if it’s going to move forward, there has to be quantitative, some kind of certification, or understanding that this meets the criteria. And if it does, we’ll put that training together. We already put the training together, it’s
just not recognized, yet.

You know, if we can do that, we will produce the people that you need to provide the services.

COMMISSIONER MCALLISTER: So, yeah, let’s -- I think this is definitely good to inject into the conversation. I mean, you could say all sorts of -- but I think -- before, we heard a comment that was sort of similar, you know, sort of recommending a facility manager focus. But I think, you know, we’re talking about getting energy savings from retro commissioning, from demand response, from a whole bunch of stuff that really are systems and buildings that somebody’s got to take care of, and curate, and optimize, and all that kind of stuff. So, there’s clearly value here. So, let’s just keep the conversation -- keep you within the conversation, so we can figure out how to sort of fit it all together.

It looks like Martha --

MS. BROOK: Yeah. I mean, to me, this will be one of the first assignments of an industry collaborative is -- you know, because we heard you, clearly saying, that you need a specific certification. But then, we’ve also heard that there’s hundreds of certifications that are not recognized. So, how do we like just not create the 101st one? Right? So,
that’s where I struggle. I don’t know that space well enough and I think the industry group, that focuses on needs and strategies to meet those needs, will be really important for us.

I just don’t think the Energy Commission can do it without the industry participation. I don’t think we have enough domain knowledge, I guess I’d say, in the workforce certification world.

MR. THOMAS: Clearly, the State already recognizes us through our Joint Apprenticeship Committee. And the State of California has apprentices in our program, to provide those exact services. We’d love to train all of them. We already train them, constantly. We have training throughout Northern California, Sacramento, San Jose, San Francisco, Los Angeles, San Diego.

MS. BROOK: Uh-hum.

MR. THOMAS: So, you know, we’re here to do that job. The State’s already recognizes us. I don’t think it’s that far of a jump to say that, you know, we’re already part of the program.

Actually, today, they’re trying to wrap up Bargaining Unit 13, and they’ve set aside a subcommittee to look at the training. So, you should be aware of that.
MS. BROOK: Uh-hum.

COMMISSIONER MCALLISTER: Well, so, it sounds like something that we -- the first step, for us, would just kind of to be get up to speed on all the players, and what’s the state of this is. And then, sort of figure out where to go from there.

MS. BROOK: Uh-hum, yeah.

COMMISSIONER MCALLISTER: Yeah.

MS. BROOK: Yeah, thank you so much.

COMMISSIONER MCALLISTER: So, thanks for being here. So, your participation in that is crucial, to kind of help us, help us get up to speed. Thank you very much.

MR. THOMAS: All right, thank you.

MS. BROOK: All right, if there’s no other comments in the room, we have Charles Kormani, on the phone, who wants to say something.

MR. KORMANI: Yes. Hello, my name is Charles Kormani. I’m the Executive Director of Efficiency First California.

And this is kind of a twofold comment about the workforce education and the permits. One thing that needs to be addressed is workforce education and training for the code enforcement officials.

Now, one thing I’ve seen, constantly, is being
in the field and having all the paperwork in place for a permit, or an inspection, and the building inspector doesn’t even want it.

I have also spoken with local, smaller, municipal entities about code enforcement, and their common response is they don’t have the resources available, basically, human resources, to enforce the existing regulations.

I think that we need to really pay attention to the fact that the difference of a permitted job to a non-permitted job can easily be $1,000 difference in price. So, I really have an issue with the fact that we have this program and, you know, I understand the IOUs’ position of not wanting to be the permit police, and all of this, and requiring permits as part of participation in an incentive program.

But I think that, if we have regulation that’s in place, currently, particularly even in relation with duct testing, with HVAC, and it’s basically being overlooked because of a cost comparison, so it’s cheaper to not do it, and there’s basically no penalty to those who are doing it. And part of the reason is because the code enforcement people don’t have the resources to enforce it.

As we go further down this path, what are we
going to do to address this? When you provide other
things, how are we going to enforce these regulations
and how are we going to support the community, who is
there to enforce these regulations?

COMMISSIONER McALLISTER: Great, thank you.

MS. BROOK: Thank you, Charles.

Anybody else? Is that it, Laith?

All right, so we’re going to try the phone one
more time and, hopefully, no news from grandmothers, or
anything. But, yeah, so if you have a comment on the
phone, now is your chance. Please mute your phones, if
you don’t need to speak with us.

(Irrelevant comments from the phones)

MS. BROOK: Okay.

MR. YUNIS: There’s a Janelle Jackson, I just
saw pop up.

Janelle, are you there?

Derek, are you there?

MR. OKADA: This is Derek.

MR. YUNIS: Yeah, you can go ahead.

MR. OKADA: Okay. Hi, this is Derek, from
Southern California Edison. So, I just wanted to
comment on the last strategy, regarding behavior
programs. I saw that the goal was by -- the milestone
of 2025 to expand the scope of behavior programs.
I just wanted to let you know that, recently, the California IOUs hosted a Behavior Summit, to explore expanding the behavior definition. And this is largely in part because of the current definition’s design, that it’s limiting the scope of behavior program’s reach, because of the set aside for a control group.

So, by 2025, the California IOUs may be not able to go deeper into behavior programs, unless the definition is altered to allow other methodologies.

MR. YUNIS: Okay, thank you.

COMMISSIONER MCALLISTER: Thanks for that.

MR. JOHNSON: Alrighty, let’s move on to Goal 4, then. So, I was just going to say that I printed out a couple copies of the draft update, that are in the foyer, if you don’t have one. There’s also bottled water, if you want it. I know we’ve been all sitting here since this morning. So, we appreciate it.

MS. BROOK: Can you introduce yourself?

MR. JOHNSON: Yes. Daniel Johnson. I’m part of the Existing Buildings Unit. I’ve been working on this update, and also, the first Action Plan, as well.

So, I’m just going to talk about Goal 4. It’s on page 55, if you have it. Pretty much, we’re just going to cover real estate value.

Right now, with the increasing engagement in the
real estate market, so the year 2016 saw the development
of the utility companies’ efforts to increase the role
of energy efficiency in the real estate market.

Working groups and studies, funded through the
statewide Codes and Standards Program, highlighted the
potential for increasing awareness of, and creating
market demand for, energy efficiency during real estate
transactions.

The preliminary results of a survey, conducted
by Build It Green, in collaboration with Oakland
Berkeley Association of Realtors, and the California
Regional Multiple Listing Service, revealed that 70
percent of realtors are interested in using energy
efficiency or green features as a selling point.

The survey results also identified a lack of
understanding of home performance, as difficulty in
confirming sellers’ claims as the top challenges facing
the market for green homes.

Moving on to the energy asset ratings, with the
real estate industry. The Real Estate Standards
Organization, or RESO, the USDOE, and MLS’s across North
America, are well-equipped to integrate energy
efficiency data into real estate listings.

However, the following challenges remain.
There’s few existing properties that have performance
rating data for the home appraiser to review, for comparables, making it difficult to ascertain the market value of the home. The existence of multiple rating systems makes it difficult to compare properties. And, sellers are hesitant to spend money, to obtain a rating, as the market demand for energy-efficient properties has not yet scaled, sufficiently.

So, standardization of performance ratings continues to be important. And making the rating data available to both MLS, and assessor tax databases, is critical to facilitating data flow into the market.

There is a need to create and embed tools, within MLS databases, to cross-map disparate ratings. Development of such tools is recognized as a new strategy, in this update.

The last piece of 4.1 will be the energy and water cost savings. So, another segment of clean energy data that will need to be brought into the MLS databases is energy storage. All right, for example, demand for properties that store locally-generated energy, or take advantage of off-peak energy costs. Information on air quality and water efficiency are also valuable, and will require standardized data terms for effective communications within real estate markets.

So, the CPUC has developed and approved a Water
Cost Calculator that estimates embedded energy in water, to support water energy nexus programs. And improvements to the calculator are planned for late 2016.

Moving on, the same table here, we’ve got on page -- page 59, the last sub-strategy for Goal 4 is the targeted data and research-driven ME&O (phonetic).

So, right now, Energy Upgrade California is well-established as a marketing platform for all demand side programs in California.

According to their recent evaluation, the program has an awareness rate of 20 percent, meaning 20 percent of Californians recognize the brand, once given cues about it.

Which is true because, just yesterday, my girlfriend pointed out this bear on her laptop. And I said, oh, yeah, I actually work it. And she goes, “No way”. So, it’s on the internet.

So, in 2016, the CPUC has been working to take EUC to the next level. According to the CPUC, ME&O should play a significant role in meeting the State’s ambitious greenhouse gas reduction goals.

To that end, the CPUC has selected a program administrator to continue implementing EUC. The CPUC will work with the program administrator to create an...
integrated, five-year, ME&O roadmap, that will encompass marketing strategies for EUC, and other program administrators.

Inputs into the five-year roadmap include this Action Plan update, the energy efficiency business plans, the marketing plan being developed for time-of-use rates, and other demand side proceedings.

One-year action plans are being developed, that will provide detail to the five-year, ME&O roadmap.

The challenge for Energy Upgrade California will be meeting SB 350’s goals of doubling efficiency.

Currently, the statewide program is separate from the utility ME&O programs, due to the geographic limitations of the IOU service territories.

Efforts need to be integrated to create a more seamless presence in the market.

Lastly, we have the Public Awareness Campaign. And so, stakeholders have encouraged the Energy Commission, and the CPUC, to include a public education and awareness campaign in statewide ME&O efforts.

Similar to what drew public attention to the drought, Californians need to be exposed to clear messages, from multiple media channels, that communicate the urgency of the role that energy efficiency plays in combating climate change.
This campaign should inform and demonstrate that saving energy is smart, cost effective, and beneficial for them, the State, the country, and the world. The campaign, which should be developed with input from stakeholders, must be a simple, understandable message, that will lead consumers directly to utility programs in their local area.

So, that’s all I got. Nice, short, and sweet.

We’ll move on to discussion.

MS. GAVRIC: Good afternoon. This is Jeli Gavric, again, with the Realtors. Thank you for having me here, today.

I just wanted to bring up a couple of points on this issue, that haven’t been highlighted in this document, but I do believe these need some serious attention, as we move forward with this program.

First of all, I wanted to just mention, like from a righting perspective, it’s not really 70 percent of realtors that are interested, it’s the 70 percent of realtors that were polled. And so, we don’t know what that universe of people looks like, but we have 190,000 members. And, anyways, just letting you know --

MR. JOHNSON: Okay.

MS. GAVRIC: -- that that polling could have been done in a unique environment, so we’re not sure
what that data looks like, when spread out across our entire population. Just letting you know.

MR. JOHNSON: Okay.

MS. GAVRIC: But, more importantly, is the valuation of green features. And I didn’t come here to nitpick your report. I came here to talk about something that’s really important. And I wanted to echo the concerns of the Sierra Club, and some of the other speakers that came before me, in the previous strategy section comments, for Section 3.

It seems that there is a huge problem with the quality of installation of a lot of green features in homes. And so, if they’re installed incorrectly, or they’re operating not optimally, or under-performing in any way, it’s really hard, I think, for anyone to come in to value that item accurately, for a home.

And so, that is one of the major problems that we’re looking at is we know that on its face, seeing that you have dual-paned windows, or increased efficiency HVAC systems, or what have you, on their face, they seem like they could bring great value to a home.

But what we really need to understand is were they installed correctly? Are they done -- are they really bringing value to that home? And that hasn’t
been underscored in this section, the reality of the
installation of those systems, and what have you.

Also, another major feature that we need to
consider in this section is how was that feature
financed? If it was financed out-of-pocket, by the
homeowner, no problem. If it had any sort of PACE
financing around it, that is actually a feature that
detracts from the value of a home.

For instance, and this is just anecdotally, this
has happened to me. I’m in the middle of refinancing my
home with Wells Fargo. The first question they asked me
over the phone was, do you have a solar system? And I
said, no. And they went, whew. Because that, in and of
itself, could have had some consequences around my
ability to refinance my home.

So, I just wanted to highlight that there are
the Federal lending -- the government-sponsored
enterprises, Fanny and Freddie, FHA, these federal level
agencies are the ones that have trouble with PACE
financing, and even on bill repayment.

And so, earlier, this year, we were in support
of Senate Bill 1233, McGuire’s Bill, that would have
taken water efficiency features, and wrapped the payment
of those into the savings that you would have realized
from the reduced amount of water that you would have
used.

And so, basically, it’s a pay-as-you-save program, which we felt that we could wholeheartedly support because it didn’t put a lien on the property. It didn’t encumber the property in a way that we felt would cloud the title.

Unfortunately, when we reached out to federal lending agencies, they indicated that even on bill financing through a utility is a problem for them, and that they might not lend to homes with those types of financing features on them. Which was a huge surprise to us because we were in support of the bill. So, then, we had to back step and remove our support, which we’re very sad to do. Because we felt like this is a very clever financing program that we had hopes for, in California.

So, I think that when we’re looking at the valuation of green features, in real estate, we need to look at the -- just to reiterate a couple of things. One, was it done correctly and is it truly bringing value to that home? And, two, how is it financed? And is that, in and of itself, going to create a barrier to financing for that home, or otherwise detract from the marketability of that home.

So, we’ll bring forward written, more
comprehensive comments on that. But thank you.

COMMISSIONER MCALLISTER: Great. Just a couple of things. And so, you know, I appreciate your bringing up those issues or potential issues. And I guess, maybe, you ought to ask Martha to highlight some of the strategies that really are meant to help appreciate the effectiveness of, you know, the performance of a building, include the performance of measures that are included in the building. Right? The asset rating approach, that we’re trying to modernize, really gets at this issue you’re talking about.

So, I’m hopeful that we’re going to actually create the kinds of -- the kind of environment that can accurately reflect the qualities of the asset that have to do with energy, and then have those on an MLS, in a way that it helps -- or, at least available to the marketplace, in way that it does help, you know, articulate the marketplace, and in a way that makes sense. Right? And so, it helps energy be valued.

On the financing stuff, I’ll say, I was in the White House, actually, on Tuesday, of last week, talking about PACE. And the FHA, you know, head honchos were there, and we had a really robust conversation. I think there’s a lot of progress happening on the Federal level, on this. Certainly, the last couple months of
the Obama Administration, they are trying to sort of push this conversation forward.

And there are many, I think, there’s a huge amount of interest across the states. California’s been a leader, you know, in PACE. Our Governor is one of -- you know, one of the -- he’s been sort of promoting and pushing forward to help PACE mature, since, well, you know, like a decade, now. Really, since the early days of PACE.

So, I think there -- so, the other -- where I’m going with this piece is the data aspects of the Action Plan extend to understanding the performance of measures that have been put in place through different programs, including PACE.

So, one of the things that I think the Federal government’s looking at, and certainly, we’re supporting, is getting robust, granular, project-specific data on PACE, to make sure that those -- to understand what the energy performance of those, of properties that have used the PACE mechanism, actually have been. Right?

So, keeping an eye on the marketplace. Again, this is something that government, if it has a role, in this instance, it would be consumer protection. And, sort of understanding the impacts from an energy
perspective.

So, you know, I would encourage -- so, you know, the California Association of Realtors, you know, needs to be involved in these discussions. And I just want to encourage your -- you know, I know you will, but your ongoing participation.

MS. GAVRIC: We’re more than happy to.

COMMISSIONER McALLISTER: Because I think there’s a -- there are very proactive, very, I think, positive approaches to dealing with some of these issues and, really, coming out in a good place on the other end. So, you know, you guys have to be a part of that discussion.

MS. GAVRIC: Certainly. And if we can get the financing piece covered, and if we can work with Federal agencies to work through their hesitations -- in fact, we were supportive of PACE, when it was introduced in a bill, in 2009, when it was at the legislative level.

So, we were -- we’ve been supportive of these alternative financing programs, in the past. And the only reason that we’ve retracted some of that support is we find that our clients cannot find financing with these instruments placed upon homes, that are up for sale.

So, if we can just work through that financing
piece and then, also, get an accurate representation of what those features really, truly mean to a home, that’s really important for us. Thank you.

COMMISSIONER MCALLISTER: Yep, totally --

totally agreed on that.

And, you know, I will say the FHFA has come out with a positive sort of view, now, on PACE. And we’re all kind of waiting around for FHA to kind of come around, and that conversation to move forward.

But, you know, I think there is an appreciation. And, for the record, I mean, they haven’t really blackballed any communities, in terms of buying up the mortgages. But, you know, so I think they’re kind of getting comfortable with the fact that the sky hasn’t fallen, and there’s sort of -- but we all need better data. So, that’s a big point.

MR. NESBITT: George Nesbitt, HERS Rater. The value of a house is not always the sum of its parts. Especially in a market where prices are going up. The cost of the house does not necessarily reflect the cost of upgrading systems. A lot of studies have shown that most home improvements do not, if you turned around and sold your house, do not return, you know, an equal amount of money in value, to the cost of the improvement.
Yet, energy efficient improvements are the one thing that can actually give you back money, over the long term, on your bills, and should bring value to the house.

That brings me back to the HERS Rating System. I mean, I know there’s been a lot of discussion about appraisers, and energy efficiency, and they are supposed to be able to look at a HERS report and, essentially, take that as part of the value. And our HERS Rating System shows you that what the value of the improvements are, over the life -- well, of a mortgage, typically. And whether it returns more money or not. And just because it doesn’t return enough money, doesn’t mean it doesn’t have value.

And that also brings me back to the energy efficient mortgage. What a great product. You can buy a house, fix it up, one mortgage. In theory, I think you can use it even on a new house. Hasn’t been used much. Part of it, originally, was our home values were too large. And then, when the market crashed, and I think values -- the allowable limits were raised, it came back in play for a little while, but it’s essentially disappeared, despite the fact that we have a real estate disclosure booklet, in California,
Apparently, home energy -- the home energy score can now be used for an energy efficient mortgage, is my understanding. But what it can’t do is turn around and give you code compliance.

With a HERS Rating, and with the data we collect, we, if you’re doing an addition to a house, or a major remodel, and you want to comply with the performance method, especially, we can take that same data and give you energy compliance.

So, you want to talk about a cost effective system, I can tell you, I’ve seen people, who have picked different people, to essentially create the same data on a house. It makes no sense.

So, the HERS Rating System is an absolute -- you know, it’s the universal solvent. It’s the one system that is compatible and is, essentially, recognize by lots of different things.

PV systems, whether you own the system matters, versus whether it’s a lease. And, you know, the appraiser can’t give it any value, if it’s a lease.

Yet, in the HERS System, we can at least show you the effect on your utility bill. While it may not have value, as an asset, because it’s not actually an asset of the house, we can show the value of it to an owner.
Part of the energy efficient mortgage, why it hasn’t been used, is usually people start the process too late. And realtors are then, also, worried about holding up close.

So, if sellers actually had a HERS Rater come in, look at it, give recommendations, some sellers do a lot of work. Unfortunately, you know, there’s a lot of work that’s done, that is not good, or was maybe not the right decision, as well as the quality.

And there, again, the HERS Rater, gosh, we’re used for code compliance. So, if we already know the project, maybe we’ve already tested it, you know, it should be a lot easier.

So, yeah, there are issues. But, you know, none of it is really insurmountable.

MS. BROOK: Thanks, George. Yeah, so just so that the audience understands, that 2019 target strategy of including asset ratings in real estate listings, really means that we’re going to be very, very busy in the next two years, to reestablish the Home Energy Rating System in California regulations. We’re going to revisit the regulations. We’re doing our very best to reduce the cost of an asset rating, in California, and increase the robust repeatability, and verification of HERS Ratings, to the point of the real estate industry.
That it doesn’t make a lot of sense to push for metrics in real estate listings, if they’re not dependable and robust.

And right now, we do know that we have some issues with the Home Energy Rating System, in that way, and that multiple raters can rate the same home, and get different ratings, and that’s really not okay, in terms of robust, repeatable, sustainable metrics for home energy performance.

So, we’re doing our best and will be doing much more, in the coming years, to revisit the regulations, and reestablish the HERS Rating for existing buildings, in ways that Abhilasha mentioned, and consistent with new construction ratings.

And so, there’s kind of a lot of sub-strategies, kind of, you know, not highlighted on that graphic, that is going to allow that 2019 goal to be met.

MS. WADHWA: This is Abhi. I want to add, I had a very interesting conversation with somebody, who used to work at the Energy Commission, and is now pursuing energy policy in Europe.

And one of the things we talked about was the plethora of home energy asset ratings that came into the marketplace, in Europe, and started confusing the marketplace so much that, at some point, they’d just
given up on it because they feel like people can just go buy whatever rating they want.

I think it’s pretty similar to what you were saying, George, you know, that people will just hire a different rater. In this case, it’s not even a different rater. It’s just they have a buffet of rating systems to choose from. And it has completely devalued what rating system was supposed to do for real estate.

And the lesson learned for us, in the United States, and California, should be that this is the time to watch out that we don’t start creating those kind of confused rating systems.

So, that’s kind of what Martha is saying. The next years are going to go in making sure we have a consistent, uniform asset rating, which is not only just low cost, or no cost, but also reliable.

MR. NESBITT: George Nesbitt, HERS Rater. That has a lot to do with the training. I mean, there may be structural issues to how we’re calculating things, and whatnot. But a lot of it just comes down to training, and people, you know, applying the same process. And we can’t completely eliminate it.

But, unfortunately, what we have done is created confusion. We have a HERS Rating System, which we’re required to have by law, yet 2013 Code, we entered the
design energy rating, which was really a HERS Rating, but we’re not calling it. And 2016 is the same. We’ve allowed the Energy Upgrade California contractors to do a HERS Rating, but we didn’t call it a HERS Rating. It was the same software, the same inputs. And we allowed people, who were not actually trained, and were far more willing to be subjective, and didn’t want to do this, did not get trained to do it.

CBPCA, California Building Performance Contractors Association, gave up training anyone in the software, essentially, in 2003. Despite a lot of promises about, you know, about calculating savings, and real savings off of real use, and proving savings, and a lot of other things.

And so, sadly, we’ve really undermined it. It’s not the HERS Rating System, per se.

MS. BROOK: Well, let’s talk about this more -- MR. NESBITT: A lot of it’s implementation.

MS. BROOK: Yeah, so, I would say, you know, in 2017, look for the announcements for the HERS discussions, and we really want your input.

But we’re going to keep going, now, if that’s okay? So, Goal 5. No, really -- okay, Goal 5 is -- COMMISSIONER MCALLISTER: Let’s make sure, just at the end, in the public comment, let’s just make sure
that we really give the phone a workout and just make
sure anybody who wants to comment, can do so.

    MS. BROOK: Sure, sure.

Goal 5 is Efficiency Financing. And we’ve been
touching on this off and on all day. So, I would say,
overall, the update is -- really doesn’t change anything
fundamental in the strategy section. We have all the
same strategies. We updated -- we trued up some of the
timeline, and expected due dates for the strategies.

But the update, itself, really talks about the
status of the California Hub For Energy Efficiency
Financing, CHEEF, which is administered by the
California Alternative Energy and Transportation
Financing Authority, CAEATFA. And they are in the
process of developing a finance payment and project
performance database. And this, to Andrew’s, and
others’, points about data, and metrics, and
understanding if we’re getting the value that we expect,
and the performance that we expect.

This will be huge in terms of understanding the
investment strategies, and whether we’re getting what we
expect we did, by collecting the right data to support
those types of analyses.

The Investor Owned Utilities are financing

CAEATFA to do some piloting for different finance
products, and also included in the Tracking and Performance Database.

As of July, 2016, there’s a single-family pilot, the Residential Energy Efficiency Loan Assistant Program, REEL, that’s been launched. It hasn’t had a lot of uptake, yet, but we’re anticipating that to grow in the coming years.

And we talk a little bit about the PACE progress because it’s been pretty huge, in California. We expect, you know, a $2 billion type of financing efforts, to date, in the single-family residential market.

So, again, understanding the performance of PACE projects and programs is really important. It will be very interesting, as well, to see if any of the PACE providers actually participate in PG&E’s Pay-for-Performance Pilot, to see if they’re willing to maybe invest more heavily in energy efficiency, and use a meter-based savings approach to understand savings performance.

We talk a little bit about the barriers to commercial efficiency investments. And some of the things utilities are doing, like the Alternative On-Bill Financing Program, that PG&E is launching. That doesn’t pay a traditional incentive, but definitely streamlines
participation and uses, meter-based savings approach in that on-bill financing program.

So, we’re looking forward to understanding the value and the example that that pilot will serve.

We talked, some, about more effective and full participation of low-income and disadvantaged communities, in financing programs. And one of the things we didn’t mention in the data section, that’s relevant here, is that the Community Services Department, in California, that runs our Weatherization Programs, our Federal Weatherization Programs, and some of our Cap and Trade Efficiency Programs, is collaborating with the Public Utility Commission to build a central database, so that all low-income financing, and incentive programs will be kind of under one umbrella, in terms of data. And so, that we can collect, monitor, analyze and report on low-income financing and low-income efficiency programs going forward.

That is all I wanted to highlight in the financing section, except that we do have a -- kind of an introduction in this section, that’s a little bit gloomy. This talks about the fact that in order to meet our goals, we need to mobilize, you know, orders of magnitude more of financing mechanisms in private
capital, than we have been able to do, to date, in the State. And that, we really need creative options in this area. And we’re hoping that data and performance-based documentation, you know, risk assessments will help that private capital invest, because they’ll see that efficiency is real. It’s not just something we put on paper, but there is a way to measure it, and to monitor it over time, and there’s documented processes to confirm savings. So, we’re hoping that that will help private investments in the future.

But we still need a lot more. And that’s all I have. If anybody has any comments or suggestions for us, now is the time, on financing.

I know, everybody’s wondering who’s financing lunch. That’s what I’m -- I know, my stomach’s thinking that.

Good. Anybody on the phone? And now is the time, if you have any comments about anything, including if you had some struggles with the phone. We’re going to open the lines and give you another chance to tell us what you’re doing. And, hopefully, it will be related to what we’re talking about.

And once again, if you’re listening, only, please mute your lines. The phones are going to be open.
COMMISSIONER McALLISTER: The lines are open.

Anybody want to comment?

MS. HARRIS HICKS: Yes, I would like to, but I’m not connected.

COMMISSIONER McALLISTER: You are. If you want to comment on the AB 758 Action Plan Update, you are on.

MS. HARRIS HICKS: Oh, in other words, you can hear me, there in the room?

COMMISSIONER McALLISTER: Yes. Just state your name and feel free to comment.

MS. HARRIS HICKS: Okay. I’m Lynne Harris Hicks. And I’m advocate in the issues that have been done, by many organizations, in a collaborative way. And we’re making it even more collaborative, now, with the (indiscernible) -- League of Women Voters, and all those kinds of groups.

And I am faced with the protest, actually, of people, on several of these factors that you’ve been talking about there. And I want to warn you, that if you do not know already, and I would like the people who are listening to this to know it, that you must be very careful in doing any sort of single umbrella, you call it, efforts, or regulations, or the investigations with the California Public Utilities Commission. Because it has so completely been captured by the energy owners,
International Edison, International Sempra.

And this is a very deteriorating to our whole system, in which we were attempting to move from the fossil and nuclear to the clean, safe, and free source renewables. Because we find that this is not just in the California Public Utilities Commission, but most of our -- I shouldn’t say most, I don’t know if it’s most. But in many of our protective agencies, there is the effort to cover up, or to delay, or to whatever they have to do to protect the energy people.

And so, this is very important right now because we can’t seem to get it out in the newspapers. And so, this is -- I would hope that you would give some kind of a hearing in Southern California, and not way up in Sacramento, because of the effects of this is so big in the southern most reaches, in the Capistrano Bay Area, we call it, where San Onofre is.

And the closing of San Onofre is just really -- it just closed, now, and there’s very much cost, and that’s what we want to make sure that -- I’m so glad to hear the good recommendations that have come in through this session that you’re doing. Because it’s just what we need. We need to have specifics in the regulations, and we have to have some kind of investigations of them.

And the one that is most visible, now, is the
CNG -- they call it clean natural gas. And it’s handled in the California Energy Commission reports. It’s handled in the Renewables section, as other efficiency measures. Other efficiency measures.

And we now know that it’s neither safe, nor efficient, because it has the possibility of such terrible tragedies as have happened in Porter Ranch.

COMMISSIONER MCCALLISTER: Thank you.

MS. HARRIS HICKS: Okay.

COMMISSIONER MCCALLISTER: Yeah, I wanted to acknowledge your comments, and also thank you for your written comments that you submitted. And then, also, invite you to submit further comments, if you have them, to --

MS. HARRIS HICKS: Oh, that was just a little, off-the-cuff comment. But I will try to get some of our leaders to do that, now. Because I realize how important it is for you. Okay, thank you.

COMMISSIONER MCCALLISTER: Thank you for your comments.

MR. GOLDEN: This is Matt Golden. Can you hear me?


MR. GOLDEN: Great. Thank you, in general, for this presentation today. I’m going to just cover one
kind of specific point, but it’s definitely related to a lot of what’s been talked about today, and also just looking at this final slide.

You know, I just want to make the point that there’s been a lot of focus -- I think when we talk about energy efficiency financing, we’re kind of confusing two issues, regularly, that are both equally important but, really, should be thought of somewhat separately.

So, whether it’s PACE, or OBI, through CAEATFA, or a loan, or a lease, you know, consumer financing is definitely a requirement for energy efficiency to scale. And I think we’re seeing a lot of really exciting advances in that respect.

But I think we should be thinking about, and when you look at, like, lower down the slide, where it talks about preferred resource procurement, we’re really talking about a different type of financing of energy efficiency, that really shouldn’t be confused with consumer financing.

So, right now, customers are, in financing energy efficiency, they’re saving on their bills, they’re receiving many benefits. But a large amount of the benefit that’s actually being generated is being accrued to the utility, you know, as a grid benefit, and
also a carbon benefit.

And so, I think it’s really worth kind of separating and thinking differently about consumer finance, which again is either based on the asset, the credit rating of the borrower, or the assessment, which is paying for their benefit. The bill savings, you know, the more comfortable home that they’re living in.

And, really, separately thinking about the benefit that’s accruing to the utility, and to the public sector, in the form of a new grid resource that can help us, you know, balance solar generation, for example, and also for the carbon reduction.

And, really, that requires a different type of financing, which is ultimately project finance, and is really kind of a wholesale signal.

And so, I just would encourage that, you know, we can have multiple forms of consumer financing, that’s helping kind of customers pay for their part of the benefit that’s being accrued, but there’s real -- real energy efficiency financing. When I say, “real”, you know, really underwriting energy efficiency as the asset is really this transaction between aggregators, you know, folks that are putting together portfolios of projects, that are driving measurable savings that the utility can start to procure, as a true, grid resource.
And that’s really a different type of financing, altogether, and creates a market-based platform for these other, consumer business models, essentially.

So, I just wanted to kind of throw that out there that I think both are necessary, and we’re seeing great advances in both, but they, really, shouldn’t be confused, ultimately, as we think about policies and what needs to be rolled out in the marketplace.

COMMISSIONER MCALLISTER: Thanks. Good points, Matt.

MS. BROOK: Yeah, thanks, Matt. We’ll try to accomplish that in the next version of the plan. We appreciate that clarification.

Anybody else on the phone? Going once. Going twice.

Okay, so, we’re going to wrap up, now. This is Martha Brook. Thank you for spending your morning with us. And, let’s see, I’m going to say something about when your written comments are due. Where is that? November 1st, Tuesday, 5:00 p.m., we’ll be accepting comments into the docket, that you should already know about, Docket 16-EBP-01. And we hope that we can respond to those in a way that makes our final plan update better. Thanks.

MS. WADHWA: Just to add to that, this is Abhi.
We plan to adopt the final update in the December Business Meeting. So, this time around -- we usually accept slackers But this time around, if you can please be prompt, and try to submit as soon as possible, that really helps staff. We are on a very short deadline staff. It would really help staff to start addressing your comments, quickly. So, November 1st, it is.

COMMISSIONER MCALLISTER: Great. Well, thanks a lot. I’m going to just wrap things up. I really appreciate everybody coming, especially the stalwarts, who are still here.

But this has been a great discussion and I’m really glad we’re moving forward.

I want to, you know, highlight the urgency here, again, to get the update done, as we are obligated to, actually, by the end of the year.

And this is, again, you know, as in everything, AB 758, it’s sort of each step is another step on a long journey, actually, that’s going to get us -- get us to 2030, and 2050, and really provide a lot of value to the State and help us reach our long-term goals.

And, frankly, improve people’s lives across the State, in ways that have to do with energy, in other ways that don’t even have anything to do with energy, just quality of the built environment. Whether it’s our
schools, our public buildings, our homes, our businesses, it’s all going to be, I think, much improved. And, hopefully, we’ll find ways to do it in each of those sectors and beyond.

So, anyway, thanks for coming here. And let’s keep that long-term perspective, but still bring your creativity to the table in comments.

That’s very much. We’re adjourned.

(Thereupon, the Workshop was adjourned at 12:59 p.m.)

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